# Report of the Steering Committee of the Regional Database & Estimation System (SCRDBES)

4–6 December 2018

ICES HQ, Copenhagen, Denmark

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# Contents

## Executive summary

The Steering Committee of the Regional Database & Estimation System (SCRDB) held its 2018 meeting at the ICES Secretariat HQ in Copenhagen 4-6 December 2018. The meeting included representatives from the RCG Baltic Sea, RCG North Sea & Eastern Arctic, RCG North Atlantic, RCG Long Distance Fisheries, RCG Large Pelagic, the Diadromous RCG sub-group, the WGRFS, the ICES secretariat, the European Commission (DG MARE and the JRC), and non-EU ICES members (Iceland, Norway, Canada).

The existing RDB and in-development RDBES are 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 in the North Eastern Atlantic area.

This was the first meeting under the new unified SCRDB group structure - it worked satisfactorily and allowed input from a large number of interested parties.

The development of the RDBES was reviewed and a revised development road-map was produced. Funding of the RDBES development has been agreed until October 2019 but not beyond that point - agreement on an ongoing funding source is a key question that must be resolved. Whilst the focus remains on detailed commercial fisheries data the potential inclusion of a large amount of different types of fisheries data (e.g. diadromous, recreational) in the RDBES was discussed.

The use of the RDB in the RCG meetings and the FishPi2 project was summarised.

Input for a standard template on overviews of fisheries and sampling, that will be developed by an RCG intersessional group, was given.

A recommendation to set the deadline for the 2019 RCG data call as 1st April was agreed to allow the RCGs time to work with the data before their meetings in June 2019.

An initial review of how the RDBES could be used to populate the DCF National Report tables was undertaken - this work will be progressed by an RCG sub-group but will also rely on MS populating the new RDBES data format.

It was agreed that the SCRDB could provide a useful forum for RCGs to ask data-related questions - a sub-group of the SCRDB will field these questions and then agree how to progress them.

The RDBES Data Policy was discussed and the changes agreed during 2018 were published. No changes were made to the Data Policy at this meeting.

# 1    Introduction

The aims of the Regional Database and Estimation System (RDBES) are:

1)  To ensure that data can be made available for the coordination of regional fisheries data sampling plans, including for the EU Data Collection Framework (DCF) Regional Coordination Groups (RCGs),

2)  To provide a regional estimation system such that statistical estimates of quantities of interest can be produced from sample data,

3)  To serve and facilitate the production of fisheries management advice and status reports,

4)  To increase the awareness of fisheries data collected by the users of the RDBES and the overall usage of these data.

The hosting and maintenance of the RDB/RDBES is funded through the Grant Agreement (GA) between the European Commission (EC) and ICES. In principle, the GA can also cover development, however the amount of budget available to the RDB through the GA has not changed and therefore the GA only covers hosting and maintenance. Funding of the RDBES system development has been paid by ICES. EC have kindly paid for the workshops WKRDB-MODEL and WKRDB-SPEC in 2018, these concentrated on the specification of the data model and description of the data model. All software development of the actual web system and database of the RDBES is done by ICES Secretariat and paid by ICES.

The use of the data held in the RDBES is regulated by the RDBES Data Policy[1].

The RDBES is overseen by a steering committee – the SCRDBES.

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[1] http://ices.dk/marine-data/Documents/Data_Policy_RDB.pdf

## 2 New unified SCRDBES group structure (ToR a)

At the 2017 SCRDB meeting a new group structure was proposed - this was then discussed and agreed by the appropriate RCGs either via correspondence or at their 2018 meetings. The new structure of the SCRDB group is described below.

The SCRDBES consists of the following categories of members:

1. Up to two representatives from each RCG that uploads data to the RDBES. RCGs that do not currently upload data but are intending to may also send one representative after approval from the Chair.
2. One representative from each ICES member country that wishes to attend.
3. Representatives from the ICES secretariat.
4. Representatives from the European Commission.
5. Chair invited guests.
6. Observers.

The guidelines for the SCRDBES will follow the "ICES guidelines for Expert Groups" but noting that:

- Chair(s) will be appointed from the SCRDBES members in categories (a) and (b) above
- If voting is necessary then the members from categories (a) and (b) have a single vote per person, members from categories (c), (d), (e), and (f) cannot vote.
- The SCRDBES will meet once per year. It can also create sub-groups to work inter-sessionally.
- The report of SCRDBES will also be sent to the RCGs.

All effort will be made to reach consensus on decisions within the SCRDB. In the unlikely event that voting is necessary then it will be decided a simple majority of the category (a) and (b) members who are present at the meeting.

# 3 Development status of the new RDBES (ToR b)

## 3.1 Current Regional Database status.

EU member states participating in the RCG BS, RCG NS&EA and RCG NA uploaded data to the current Regional Database (RDB) hosted by ICES in response to a data call launched by the RCG chairs in April 2018. The request concerned commercial landings statistics (CL), commercial effort statistics (CE) and commercial sampling data (CS) collected in 2017, along with the upload logs summarising upload experience or issues. Data from the RDB was used by the relevant Regional Coordination Groups (RCG) in 2018.

The current Regional Database is hosted and maintained by ICES Secretariat. During the year ICES has completed numerous tasks related to the current RDB:

- Support of national data submitters,
- Corrected/updated codes in lists and creating needed codes for upload of data - species, valid metier in area, etc.,
- Download of codes described both on web site and in the Exchange format manual on request from SCRDB,
- Maintained users,
- Country uploaded file with duplicate data line, which caused duplicate insert error, we added line number in the internal error log to help the data submitter identifying such potential errors,
- Support RCGs data call,
- Data extracts for the RCGs,
- Participate in the RCGs,
- Steering Committee RDB work,
- Update of the RDB Inventory.

## 3.2 Regional Database and Estimation System development.

The existing RDB will not be developed further and the focus is on developing the new Regional Database and Estimation System (RDBES) which will provide functionality to upload relevant and statistical sampling information and perform statistical estimations which is requested by EC, which the current RDB is not capable of handling. This resulted in significant progress in the new system evolution. For the last 2 years the RDBES Core Group (which is a subgroup of the SCRDBES) has worked with ICES Data Centre to develop and specify the data model for the new RDBES - the current members of this group are:

- Kirsten Birch Håkansson, DTU Aqua, Denmark
- Nuno Prista, SLU Aqua, Sweden
- David Currie, Marine Institute, Ireland
- Edvin Fuglebakk, IMR, Norway
- Twan Leijzer, WUR, Netherlands
- Henrik Kjems-Nielsen, ICES
- Marta Suska, National Marine Fisheries Research Institute, Poland
- Josefine Egekvist, DTU Aqua, Denmark

It has been a difficult task to specify the new data model for the RDBES. Since September 2017 the core group and ICES have had:

- 9 Internet meetings
- 4 day Workshop (WKRDB-MODEL) in January 2018
- 4 day Workshop (WKRDB-SPEC) in April 2018
- 4 day Workshop (WKRDB-URS) in October 2018
- 1 half-day meeting at ICES HQ in December 2018

WKRDB-MODEL worked on the data model but this could not be completed during the meeting. The intention of WKRDB-SPEC was to write the specification of the RDBES, but it was actually used to finalise the data model. WKRDB-URS looked at the countries' feedback on the data model, populating the data model, and creating the documentation for new users. It started to write the user requirement specifications, and produce code lists, overwrite rules, and user roles.

It is important to understand that in traditional software development projects there is a specification phase and a software development phase. But in the case of the RDBES, because the idea of the requirement specifications was so vague, the specification of the data model became a development project in itself. But this should not confuse the understanding of the software development of the actual RDBES web and database application. The RDBES software is created using the most modern solutions for web applications' development. The framework used for the client side of the system is Angular, while REST server side services are programmed in MVC .Net Core. This will provide better user experience, faster response time and reduce the data transferred between the server and client. Additionally, user authentication was implemented using Angular.

Based on the latest version of the data model, which consists of 8 upper and 4 lower hierarchies, all import tables with fields and relations were created in the RDBES database in the Entity Framework. The generic CSV to XML converter was adapted to the latest version of the data model. The above mentioned steps allowed the ICES Data Centre to perform a test of importing a data file through the RDBES upload interface, which was successfully done for all hierarchies. Files used for tests contained parts of the 'real' data from the Core Group. Present work is focused on developing generic methods to create/update XSD files for all hierarchies in one go. There are also discussions ongoing to consider including data from long distance fisheries, diadromous species, recreational fisheries and large pelagic fisheries in the RDBES. In order to effectively continue the work on the RDBES development, ICES Data Centre still require:

- Test data files for all the different hierarchies,
- Specifications of:
    - User roles and security,
    - Checks,
    - Processing before estimations,
    - Estimations using R,
    - Processing of outputs and reports.

The progress made so far in the development of RDBES has not met the ICES Data Centre initial time plan. It should be noted that when this RDBES development was first discussed at the 2016 SCRDB meeting the group did tell ICES that they thought

the proposed time-scale was very optimistic. Among the reasons of the delay is the unexpected complexity of different sampling methods applied in all countries for different species. Originally the system was not expected to be so complex and dynamic. Compared to the existing RDB which has 5 tables and one hierarchy, the latest version of the RDBES data model has 15 tables which can be combined in 32 different combinations/hierarchies.

There are 2 workshops scheduled for 2019: WKRDB-POP in February and WKRDB-ESTIM in October. WKRDB-POP will be a hands-on workshop to help countries populate the new format, whilst WKRDB-ESTIM will work on design based estimation using the new format.

It has at all times been very important that the development/specification of the data model have been agreed by the countries, and the countries have great influence of what the Core Group develop/specify. During 2018, feedback was requested from expert groups including WGCATCH and WGBYC, all countries, and the RCGs. The countries have been invited to provide feedback three times during 2018 to be sure all countries can use the data model. There was a good response both in terms of the number of countries which responded and their view of the RDBES. The Core group worked to implement changes based on this feedback.

The presentation about the status of the RDBES development was followed by a short discussion during the SCRDB. It was mentioned that developing a relationship with PGDATA is very important for the data model preparation. So far, PGDATA was informed and is aware of the status of the RDBES and feedback from the group is welcomed.

Another question was about the usage of R language in the system. It is assumed that R scripts will mostly be used for estimation, whereas the input data validation will be performed by XSD (XML).

There was a question about maintaining two databases, the current RDB and new RDBES in parallel, and about a possible migration of data from the current to the new one. Due to significant differences in the data model, it is impossible to migrate data from RDB to RDBES. It is planned to have one test year when both databases will accept uploads (see development roadmap). Within the RDBES data call there may be a request by the RCG chairs to upload historic data. Until all data is in RDBES, the RDB will not be terminated but will be switched to the read-only state.

Regarding the access to the data in the RDBES by end users, it was ensured that it will be possible on different levels depending on the user privileges.
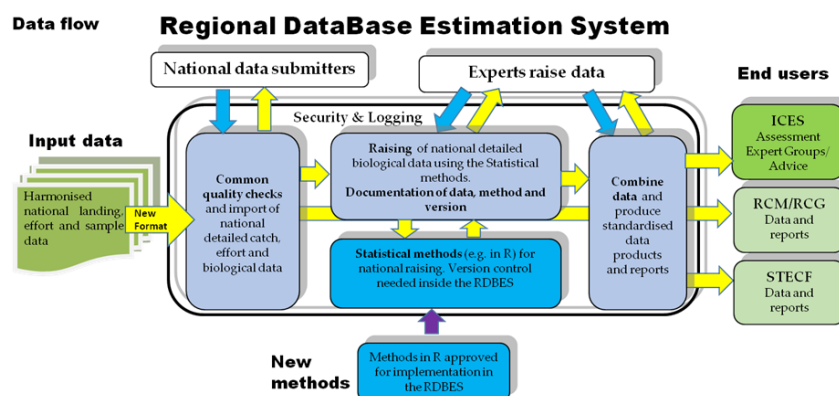
**Figure 1 Schematic of RDBES**

It was recently decided to move the RDBES development documents to GitHub to make it easier to keep track of versioning, and to make them easier to share.

The private RDBES_Core_Group GitHub repo https://github.com/ices-taf/RDBES_Core_Group will be used for internal development. Once documents are ready for release they will be copied to the public GitHub repo called RDBES https://github.com/ices-tools-dev/RDBES

## 3.3   Development Roadmap

The roadmap for the development of the RDBES was reviewed during the meeting and is given below.

The selected stocks to test in 2020 are: North Sea sole and *nephrops* stocks, cod in Kattegat, herring in 20-24, Central Baltic herring, Bay of Biscay monk, Celtic Sea cod and plaice, Northeast Artic cod, Blue Whiting (WGWIDE). We should also ask WG Chairs to suggest a stock from their WG, in dialog with the stock coordinators/countries.

For reference the stocks entering the Transparent Assessment Framework (TAF) are listed here: https://github.com/ices-taf/doc/projects/2

| | RDB System | InterCatch | RDBES | ICES Secretariat | Core Group | WGCATCH/ PGDATA | Countries | WG and Benchmark | RCGs |
|---|---|---|---|---|---|---|---|---|---|
| 2019 | Production Data in/out | Production Data in/out | Development Test data in/out | System development Test web between Feb-Oct. RDBES operational Dec. | Specifications WKRDB-POP Upload data WKRDB-EST. Start specifying Large Pelagic needs. | WGCATCH: Reviewing the outcome WKRDB-EST and suggest improvement. Guideline and algorithms for general estimations (ratio/statistical/ Design based). PGDATA: Describe how the RDBES fits into the QAF. | WKRDB-POP Upload data after POP. Participate and prepare for RDBES format and estimations WKRDB-EST | | RCG chairs to request countries to participate in the WKRDB-POP. RCG support the countries to allocate sufficient time for these WKs. |
| 2020 | Production Data in/out | Production Data in/out | Test by selected stocks | Large Pelagic development (funding needed). | WKRDB-POP (Jan-Feb) target selected stocks. WKRDB-EST (incl. imputation) Estimations for selected stocks | | Data call. Upload data for selected stocks after WG WKRDB-POP WKRDB-EST | Upload data. WG estimations. Trans Data compilation WK. Laurent/Core Group will help selected WG with selected stock (10-20) | |
| 2021 | Production Data in/out | Production Data in/out | Test by all stocks | | WKRDB-POP (Jan-Feb) target all stocks. WKRDB-EST Estimations finalised | | | Laurent will help each WG with all | |
| 2022 | Stay alive Data out | Stay alive Data out | Data call for 2021 data | | | | | | |
| 2023 | Stay alive Data out | Stay alive Data out | Data call for 2022 and all year | | | | | | |
| 2024 | Terminated | Terminated | | | | | | | |

### 3.4 Funding of RDBES Development

Although the 2 years' worth of development time that was anticipated will be finished at the end of 2018, further resources have been made available to carry on development until October 2019. Funding of the development beyond that point will need to be discussed and agreed upon - there is no clear way forward at the moment.

The Commission explained the new framework of agreement between the Commission and ICES and indicated that the funding will increase during 2019. The ICES Data Centre raised the point that although the amount of money the Commission is paying ICES will increase the amount of work required will also increase, and that none of the money is ring-fenced for RDBES development.

The Commission also asked for an estimate of development costs of the RDBES which is currently unavailable.

### 3.5 Bycatch and PETS (Protected, Endangered, Threatened Species) data in the RDBES

Incidental by-catches of organisms like, e.g., marine mammals or birds, are sometimes recorded by at-sea observer programmes targeting commercial catches. The inclusion of such data on the RDB and then its estimation by appropriate statistical methods has been a long time need from ICES EGs like WGBYC and WGCATCH that has been hampered by limitations in the structure and variables of the current RDB. The definition of a new data model for the RDBES is thus seen as good opportunity to solve past issues and secure the data is appropriately recorded and used in the new format.

The main requirements, from the RDBES to correctly store and estimate incidental by-catches, are that its data model can:

i ) record positive incidental by-catch events (i.e., has the correct by-catch codes, etc.),

ii ) discriminates between non-observations ( = missing values) and zero-observation (true 0s),

iii ) capability of recording observations made (or missing) in different stages of the fishing operations (e.g., during the hauling, during the opening of the cod-end, during the sorting of the catch),

iv ) is able to discriminate between estimates obtained from sampling in volume (e.g., a box of fish) and sampling visually (e.g., observing 260 minutes out the total time spent hauling the nets), and

v ) is able to record state of individuals (e.g., dead, wounded, alive)[2].

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[2] It should be noted that discard sampling programmes will also benefit from some of these adaptations as, e.g., slipping of target species is also recorded onboard some pelagic fisheries.

With regards to aspects i) and ii) they appear, thus far, to have been adequately incorporated into the latest version of the data model (v.1.16) by means of a species selection tables and associated species lists. Aspects iii), iv) and v) are now under discussion. The latest proposal is that they can be accommodated in the RDBES data model by:

- Inclusion of the following variables in the FO table:
    - Slipping_observation (Y/N): Indicator of observation of slipping. Slipping takes place outside the fishing vessel.
    - Hauling_observation (Y/N): Indicator of observation of hauling. Hauling takes place between the water and the inner part of the fishing vessel.
    - Sorting_observation (Y/N): Indicator of observation of the sorting. Sorting happens inside the fishing vessel, on the deck or in some sort of a conveyer belt / sorting platform.
- Inclusion of the following variables in the key of the SS table:
    - "Activity_type" (text), defined as SLIP (= SLIPPING), HAUL (= HAULING) and SORT (="SORTING").
    - "Sampling type" (integer), defined as 1 (= volume) and 2 (= visual).
- Inclusion of a variable in one of the table of the lower hierarchy that records the state of the individuals (e.g., dead, alive, wounded, unknown)

This proposal was presented during SCRDBES and final discussion and decision will be taken by the RDB Core Group at a Skype meeting scheduled for the end of January.

## 3.6  Long Distance Fisheries (LDF) Data in the RDBES

In 2016, RCG LDF recommended to include LDF data into the RDB to align data delivery with other data deliveries. RCG LDF also participated to the SCRDB in December 2016. In dialogue with ICES, reference lists were provided (areas, species lists) to facilitate upload of LDF data into the RDB. Some tweaking of these lists was required and the lists were finalized at the 2018 RCG LDF meeting. ICES will include the final lists in the RDB and it is anticipated that the RDB can be used from 2019 onwards to host the RCG LDF data.

As the RCG LDF data call goes out to all non-land locked EU MS, uploading data in the RDB might be new for some MS, as these MS' areas are outside the conventional ICES region. Some support might be needed to guide these MS. However, as the data call only includes landing and effort data, the upload should not be too complicated.

## 3.7  Large Pelagic Fisheries Data in the RDBES

The RCG LP met in Heraklion 26-28th June 2018 and the RDBES architecture was presented by Henrik Kjems-Nielsen (ICES). Scientists agreed to test if the data collected by Large Pelagic fisheries could be fitted to the hierarchies in the RDBES data model.

Three separate case studies were tested - each case is tested with the data of the country that volunteered. The suitability of the RDBES to similar fisheries from other countries should be the same but needs to be verified.

### 3.7.1  Sword fish pelagic long line in the Atlantic ocean (EU.PT)

- The data from on-board sampling fits hierarchy 1 and data from onshore sampling fits hierarchy 3

- The scientific data from the long line fishery can be populated into the data model
- RCG LP does not currently upload to any centralised RDB
- They haven't managed to actually populate the data model - IPMA is only responsible for the scientific data (no landings or fleet)

### 3.7.2 Tropical tuna purse seine fishery in the Atlantic ocean (EU.ES and EU.FR)

- The hierarchy 5 seems to fit with the declarative data and onshore sampling.
- A document, soon available, will explain exactly what kind of tests were done and give examples with the data.
- Still have to test with the other samplings (offshore,…), all the declarative data and the other sources (VMS,FOB,…)

### 3.7.3 Blue fin tuna caging in the Mediterranean sea (EU.HR)

Hard to implement in data models due to its specificity: there is no landing, whole catches are taken to farms for further fattening:

Catch -> Tugboat cage -> Transfer to Stationary cages

Sampling is done from mortality or videos taken with stereoscopic camera.

Problems:

- In most cases no sampling during the fishing operations/set, therefore no information is collected
- Multiple catches are mixed in one transfer cage making it hard to know from what catch/fishing boat does the fish come
- Any landing data not obtainable since there is no landing

Possible solutions:

- New hierarchy where Fishing Trip , Vessel Details and Fishing Operation are not included
- Make a new hierarchy with multiple Fishing Trip and Vessel detail records

RCG LP agrees to be a part of and to contribute to RDBES development so channels of communication between the RCG LP and the RDBES should be established. It could be very interesting to talk about the integration of the LP treatments and quality assessment procedures (for example the T3 process: Tropical Tunas Treatment) in the architecture of the RDBES.

## 3.8 Recreational Fisheries Data in the RDBES

During 2018 conversations have been held between WGRFS and ICES via email, and also at the RCGs, to agree on the format of a database. A key issue in the discussions has been whether the existing tables in the RDBES can be used, or a different set of tables is needed.

The fitting of marine recreational fishery (MRF) data in the RDBES designed for official catch statistics and raw sampling data will oblige a number of modifications in the tables and will provoke the coexistence of data of different nature in the same tables. That is, official commercial statistics with recreational estimates, and raw sampling

data with raised length distributions. This is not suitable as it will increase the complexity of the tables, and lead to different interpretations and misunderstandings. To avoid these problems, the option recommended by the FishPi2 project is the creation of two new tables specifically designed to host MRF data.

The SCRDB agreed that it would be good to store recreational fisheries data at a regional level and increase the documentation and transparency of the recreational data used in ICES assessments. They also agreed that if the RDBES was used then it would make more sense to store the data in clearly separate tables rather than putting it in the same tables as detailed commercial fisheries data.

Some questions were discussed about whether the RDBES would be the appropriate location for raised data, when its primary purpose is to store detailed data and provide the methods to raise that data.

It was agreed that the ICES Data Centre will continue to discuss this topic with WGRFS. If developments are agreed upon then funding will also need to be found - ICES will produce cost estimates for these when required.

## 3.9 Diadromous Fisheries Data in the RDBES

A number of questions were discussed:

1 ) *Is RDBES flexible enough to accommodate eel and salmon data? Including non-ICES countries and non-EU MAP data?*

Answer: yes, but there are issues of time and resources from both sides, so we need to take small steps. Action for eel database experts to meet with Henrik (ICES data) early in the New Year to remind him of the structure, content and operation of the eel database, and for the group to agree what are the first steps towards making the most efficient collaboration between the RDBES and Eel DB. Salmon people should be involved in this too but maybe to identify how to start. Meeting most likely one or more telecoms as there is no direct funding for this – work should be eligible for EU MAP funding but that requires agreement in host countries to support financially.

2 ) *Does RDBES align with GFCM?*

Answer: No, but this is clearly an area that needs more thought.

3 ) Can ICES Data Centre host the eel DB?

Answer: Maybe in the long run, but a lot needs to be done to make it fully functional. First step may be to 'copy' the eel DB to an ICES server as backup? Certainly, this is something for Cedric and Jan-Dag to discuss with Henrik.

Eel assessment probably should be part of the Transparent Assessment Framework (TAF) in the long run too.

Action: Alan and Colin Millar (ICES) to trial getting an EMU assessment into the TAF in 2019.

4 ) What if not all data is publicly available?

Answer: this is not an immediate issue for getting data into the RDBES because not all data in the DB is publicly available.

Action: WGEEL and ICES Data Centre to review data use policies for WGEEL data, consider adding a text on Data Use to the data call covering letter, and getting all data providers to set out their data use policies.

5 ) Quality assurance – embryonic!

<u>Answer</u>: agreed but a very important step in all things going forward.

6 ) What are the purposes of the RDBES and what are the RCG needs?

<u>Answer:</u> See the 2ⁿᵈ version of the RDB Data policy, the 'goals' speaks to the points of 'why an RDB?' at <u>http://ices.dk/marine-data/Documents/Data_Policy_RDB.pdf</u>

The RDBES is for documenting and being transparent and supporting the countries, also an element for a common approach to sampling and understanding, how to use shared effort, and ensuring quality assurance; and for driving the improvement in efficiency of data collection; there is also a DG MARE wish for all of this transparency; and it helps with EU MAP principles.

In general it was felt that whilst it would be a positive step for the diadromous data to be centrally hosted there were a number of steps to be taken before agreeing whether the RDBES is the appropriate place for all/some of this data.

# 4 Respond to recommendations put forward to the SCRDBES by the Regional Coordination Groups (RCGs) via the Liaison Meeting, and ICES expert groups (ToR c)

## 4.1 The new SCRDBES structure

| RCG NA 2018-A3 - RDB Steering Group Structure | |
|---|---|
| **What** | The RCGNA agrees to adopt the new RDB steering group structure with two representatives from the RCG NA - Dave Currie and Alastair Pout. RCG representation from the merged RCG will be reviewed in 2019. |
| **Who** | Belgium, Denmark, France, Germany, Ireland, Netherland, Portugal, Spain, UK |
| **Follow up from SCRDB** | The new SCRDB group structure was adopted in 2018 - no further action required. |

| RCG Baltic 2018-A5 - RDB steering group structure | |
|---|---|
| **What** | The RCG Baltic agrees to adopt the new RDB steering group structure with two representatives from the RCG Baltic- Katja Ringdahl and Jörgen Dalskov. One representative from each ICES member countries are also allowed to participate. |
| **Who** | Denmark, Finland, Estonia, Germany, Latvia, Lithuania, Poland, Sweden |
| **Follow up from SCRDB** | The new SCRDB group structure was adopted in 2018 - no further action required. |

## 4.2 Acceptance of RDBES Data Policy

| RCG NA 2018-A4 - RDB Data Policy | |
|---|---|
| **What** | The RCGNA agrees to adopt the new RDB ES data policy as circulated to all NCs on Friday 31 August 2018 |
| **Who** | Belgium, Denmark, France, Germany, Ireland, Netherland, Portugal, Spain, UK, |
| **Follow up from SCRDB** | The new RDBES Data Policy has now been published: http://ices.dk/marine-data/Documents/Data_Policy_RDB.pdf |

| RCG Baltic 2018-A6 - RDB Data Policy #1 | |
|---|---|
| **What** | The RCG Baltic agrees to adopt the new RDB ES data policy as circulated to all NCs on the 31th August 2018. |
| **Who** | Denmark, Finland, Estonia, Germany, Latvia, Lithuania, Poland, Sweden |
| **Follow up from SCRDB** | The new RDBES Data Policy has now been published: http://ices.dk/marine-data/Documents/Data_Policy_RDB.pdf |

## 4.3   Use of the RDBES

| RCG NA 2018-R3 - Use and development of the Regional Database and Estimation System (RDBES). | |
|---|---|
| **Recommendation** | The RCG NA recommends the development and use of the RDBES to store and analyse sampling data.<br><br>It has been recognised for many years that there was a need to have a new version of the Regional Database (RDB) – this new database is known as the Regional Database and Estimation System (RDBES) and is currently in development. The RDBES will accommodate upload of statistical sampling information and statistical estimations, as well as acting as a database. There are many benefit of the RDBES:<br><br>It will support the Regional Coordination Groups with relevant sampling data for coordination<br><br>Raise data quality by using common quality checks across all countries' data<br><br>Ensure only approved standardised statistical methods are used for estimating data<br><br>It is important that the RDBES have only approved estimation methods and it is transparent regarding the processing and estimation of data. |
| **Follow-up actions needed** | SCRDBES should steer the development and use of the RDBES and ensure MS are giving feedback about the development |
| **Responsible persons for follow-up actions** | SCRDBES |
| **Time frame (Deadline)** | 2018 |
| **Follow up from SCRDB** | The SCRDB fully agrees with this recommendation and will continue to govern, support, and develop the RDBES. |
| RCG Baltic 2018-R3 - Development of the Regional Database and Estimation System (RDBES). | |
| **Recommendation** | The RCG Baltic recommends the development and use of the RDBES to store and analyse sampling data.<br><br>The Regional Database and Estimation System (RDBES) is currently in development and will be the new version of the RDB. The RDBES will also store statistical sampling information and statistical estimations, as well as acting as a database. The RDBES will:<br><br>support the Regional Coordination Groups with relevant sampling data for coordination<br><br>Raise data quality by using common quality checks across all countries' data<br><br>Ensure only approved standardised statistical methods are used for estimating data<br><br>It is important that the RDBES have only approved estimation methods and it is transparent regarding the processing and estimation of data. |
| **Follow-up actions needed** | SCRDB should steer the development and use of the RDBES and ensure MS are giving feedback about the development |
| **Responsible persons for follow-up actions** | SCRDB<br>MS to follow the development and give input upon request |
| **Time frame (Deadline)** | 2018 |
| **Follow up from SCRDB** | The SCRDB fully agrees with this recommendation and will continue to govern, support, and develop the RDBES. |

## 4.4    Funding of RDBES development

| RCG NSEA 2018-R2. Funding of RDBES development | |
|---|---|
| **Recommendation** | The RDBES is a key tool for RCGs to coordinate regional sampling and its further development should be continued. |
| | The RDBES is a key tool for RCGs to coordinate regional sampling. The European Commission currently pays for the maintenance and hosting of the RDB under an administrative agreement, but not for any development. ICES have provided 2 years funding to begin developing the RDBES, which is the successor to the existing RDB. |
| | However the development of the RDBES will not be completed during this time period so further funding for the development must be found. |
| | There are 3 sources that this funding could come from: 1) Direct funding from the European commission, 2) Funding from MS, 3) Funding from ICES. These funding sources aren't mutually exclusive and should all be investigated. |
| **Follow-up actions needed** | ICES to provide a cost estimate for the remaining RDBES development work. |
| **Responsible persons for follow-up actions** | Henrik Kjems-Nielsen will produce the cost estimates. RCG recommendations will be submitted and discussed in the Liaison meeting. |
| **Time frame (Deadline)** | 2018 |
| **Follow up from SCRDB** | The SCRDB will communicate reporting of funding needs for the remaining RDBES development (approx. 2 years), and projections for costs after that. |
| | Communicate to RCGs 1 month before their meetings. |
| | At the same time forward to Katja for follow up in FishPi2 WP1. |

| RCG NA 2018-R5 - Funding of RDBES development | |
|---|---|
| **Recommendation** | The RDBES is a key tool for RCGs to coordinate regional sampling and its further development should be continued.<br><br>The RDBES is a key tool for RCGs to coordinate regional sampling. The European Commission currently pays for the maintenance and hosting of the RDB under an administrative agreement, but not for any development. ICES have provided 2 years funding to begin developing the RDBES, which is the successor to the existing RDB. However the development of the RDBES will not be completed during this time period so further funding for the development must be found.<br><br>There are 3 sources that this funding could come from: 1) Direct funding from the European commission, 2) Funding from MS, 3) Funding from ICES. These funding sources aren't mutually exclusive and should all be investigated. |
| **Follow-up actions needed** | ICES to provide a cost estimate for the remaining RDBES development work<br><br>RCG to consider MS funding of RDB in conjunction with discussions about MS funding an RCG secretariat<br><br>RCG NA to endorse the proposed pilot study from the RCG NS |
| **Responsible persons for follow-up actions** | Henrik Kjems-Nielsen will produce the cost estimates. RCG recommendations will be submitted to the Liaison meeting |
| **Time frame (Deadline)** | 2018 |
| **Follow up from SCRDB** | The SCRDB will communicate reporting of funding needs for the remaining RDBES development (approx. 2 years), and projections for costs after that.<br><br>Communicate to RCGs 1 month before their meetings.<br><br>At the same time forward to Katja for follow up in FishPi2 WP1. |

| RCG Baltic 2018-R4 - Funding of RDBES development | |
|---|---|
| **Recommendation** | The RDBES is a key tool for RCGs to coordinate regional sampling and its further development should be continued. |
| | The RDBES is a key tool for RCGs to coordinate regional sampling. The European Commission currently pays for the maintenance and hosting of the RDB under an administrative agreement, but not for any development. ICES have provided 2 years funding to begin developing the RDBES, which is the successor to the existing RDB. |
| | However the development of the RDBES will not be completed during this time period so further funding for the development must be found. |
| | There are 3 sources that this funding could come from: 1) Direct funding from the European commission, 2) Funding from MS, 3) Funding from ICES. These funding sources aren't mutually exclusive and should all be investigated. |
| **Follow-up actions needed** | ICES to provide a cost estimate for the remaining RDBES development work. |
| **Responsible persons for follow-up actions** | Henrik Kjems-Nielsen will produce the cost estimates. RCG recommendations will be submitted and discussed in the Liaison meeting. |
| **Time frame (Deadline)** | 2018 |
| **Follow up from SCRDB** | The SCRDB will communicate reporting of funding needs for the remaining RDBES development (approx. 2 years), and projections for costs after that. |
| | Communicate to RCGs 1 month before their meetings. |
| | At the same time forward to Katja for follow up in FishPi2 WP1. |

## 4.5    On providing data from RDB-ES to assessment working groups

| RCG Baltic 2018-A7 - RDB Data Policy #2 | |
|---|---|
| **What** | The NCs at the RCG Baltic 2018 agreed to grant ICES expert groups and related benchmark groups providing advice to fisheries management access to detailed data for the sub-division 22-32 (Baltic Sea) stored in the RDBES but only for the use by these groups |
| **Who actions** | Denmark, Finland, Estonia, Germany, Latvia, Lithuania, Poland, Sweden |
| **Follow up from SCRDB** | The RDBES Data Policy http://ices.dk/marine-data/Documents/Data_Policy_RDB.pdf  allows an ICES entity on the approved list for aggregated data, that requires detailed data from the RDBES, to request access by writing (via the RDBES host) to each country and EU MS. |
| | It was agreed that a country or MS can also pre-approve this access to detailed data - to do this a country should write to the RDBES host and state that they approve access to detailed data for all pre-approved ICES groups either for a certain period, or indefinitely.  This pre-approval can of course be withdrawn in the future. |

## 4.6    On RCG Data call 2019

| RCG NS&EA 2018-A4 - RDB upload of 2018 data – data call with deadline 1 March 2019. | |
|---|---|
| **What** | RCG NSEA 2018 agreed to prepare all steps of data to be able to upload the data collected |
| | in 2018 in March 2019, to make intersessional work and RCG meeting in June possible. |
| | To ensure to have data for the data subgroup to work and run the overviews, all data from |
| | all MS need to be uploaded 1 month before the RCG |
| **Who** | Belgium, Denmark, Finland, France, Germany, Copenhagen, the Netherlands, Poland, Sweden, the United kingdom. Spain |
| **Follow up from SCRDB** | The SCRDB recommends a deadline of 1st April for the RCG data call. Discussed under ToR f – see Section 7of the SCRDB 2018 report. |

| RCG Baltic 2018-A8 - RDB upload of 2018 data – data call with deadline 1 March 2019. | |
|---|---|
| **What** | RCG Baltic agreed to prepare all steps of data to be able to upload the data collected in 2018 in March 2019, to make intersessional work and RCG meeting in June possible |
| **Who** | Denmark, Finland, Estonia, Germany, Latvia, Lithuania, Poland, Sweden |
| **Follow up from SCRDB** | The SCRDB recommends a deadline of 1st April for the RCG data call. Discussed under ToR f – see Section 7of the SCRDB 2018 report. |

## 4.7   On RDBES information to serve the needs of the DCF report tables

| RCG NA 2018-R4 - Use of the RDBES to populate DCF National Report tables. | |
|---|---|
| **Recommendation** | Evaluate the ability of the RDBES to populate the DCF National Report tables. <br><br> It would be beneficial for MS if as many of the DCF Annual Report tables can be automatically populated. The ability of the new RDBES to populate these tables will be investigated. For each table it should be discerned whether a) it can be populated using the proposed RDBES data format, b) it might be possible to populate the table with some modifications to the data format, or c) it will not be possible to populate the table. <br><br> Where work to populate a table has already been started (e.g. populating Table 1A using Eurostat data) this should also be considered. |
| **Follow-up actions needed** | Analysis of each table will be performed and the ability of the RDBES to populate it will be documented <br><br> Any changes to the RDBES data format which will facilitate population will be considered |
| **Responsible persons for follow-up actions** | Henrik Kjems-Nielsen will perform the initial analysis. <br> SCRDBES to discuss at their next meeting in December. |
| **Time frame (Deadline)** | December 2018 |
| **Follow up from SCRDB** | Discussed under ToR g - see Section 8 of the SCRDB 2018 report. |

## 4.8   On RDBES Development

| DIG (Recommendation ID 206) – Agree Transition Period | |
|---|---|
| **Recommendation** | Agree with user community to define a clear transition period where the RDB, InterCatch and the new RDBES system will be operational, and a clear date for when only RDBES system will be utilised. |
| **Responsible persons for follow-up actions** | SCRDB; SC-RDB; ICES Data Centre |
| **Time frame (Deadline)** | 2018 |
| **Follow up from SCRDB** | A revised development roadmap has been produced.  Discussed under ToR b - see Section 3 of the SCRDB 2018 report. |

## 4.9 On the Mediterranean & Black Sea Regional Database

| RCG Med&BS 2018-R3 - Setting up of a Regional Database for the RCG Med&BS | |
|---|---|
| Recommendation | RCG Med&BS 2018 considers the development of a regional database as an urgent priority in order to allow for the efficient use of the data received from the official RCG data calls and avoid duplication of work. <br><br> Article 9(3) of EU Regulation 2017/1004 of the EP and of the Council, on the establishment of a Union framework for the collection, management, and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) 199/2008 (recast). <br><br> "Regional coordination groups shall aim at developing and implementing procedures, methods, quality assurance and quality control for collecting and processing data with a view to enabling the reliability of scientific advice to be further improved. For that purpose, regional coordination groups shall aim to develop and implement regional databases." |
| Follow-up actions needed | NCs will send the two relevant nominations for the Steering Committee (SC) by 10th of October. <br><br> The SC will convene before the end of 1018 and finalise a roadmap on issues concerning the RDB. Issues to be decided on: Agreement on the level of disaggregation (proposal for submission of anonymised raw data), the legal framework, the best option on who will host, funding opportunities for the maintenance, storage and operational costs, |
| Responsible persons for follow-up actions | NCs will send the two nominations for the SC within two weeks from the RCG MED & BS 2018. <br><br> Eirini Mantzouni, Researcher from the Fisheries Research Institute, will act as preliminary chair until the formation of the SC. The SC will then decide upon its final Chair. The Chair of the SC will draft a roadmap of following actions to be performed in order to form the RDB of MED & BS. |
| Time frame (Deadline) | LM, end of 2019. NC |
| Follow up from SCRDB | Whilst the SCRDB does not feel it is within its scope to give direct input on questions such as who should host the Med&BS Regional Database it would like to assist if possible. It was agreed that the SCRDB should share their code, expertise, and experiences with the SC from the Med&BS. It would be a very good development if the RDBES and the Med&BS Regional Database used compatible formats and structure. The SCRDB will invite the RCG Med&BS, and Regional Database Steering Group chairs to participate in SCRDB activities when relevant. The SCRDB will make code available via GitHub. |

## 4.10 Inclusion of Long-distance fisheries data in RDBES

No specific recommendations but this is a part of ongoing RDBES development work.

## 4.11 Inclusion of Large Pelagic data in RDBES

No specific recommendations but this is a part of ongoing RDBES development work.

## 4.12 Inclusion of Recreational Data in RDBES

| RCG NA 2018-R8 - To agree means and processes for inclusion of marine recreational fisheries data into the RDBES. | |
|---|---|
| **Recommendation** | The RCG NA recommends that: marine recreational fisheries data are included in the RDBES as soon as is practically possible. A proposal of a preferred option is needed that assesses the range of technical solutions, the associated resources, and impact on existing development. On this basis, an agreement of how to move forwards including timelines should be agreed by ICES.<br><br>MRF data needs to be included in the RDBES as a matter of urgency to increase efficiency of uptake and use by end users. This is likely to become more of an issue over the coming years as MRF data are included in more stock assessments. The initial proposal of a simple approach of including raised estimates and a short assessment of quality of the data is not difficult to implement. This would be easily possible given the right priority in time for the 2019 data call, with a longer timescale for upload of historical data sets.<br><br>The RCG NA supports the WGRFS recommendation. However, it is necessary to consider the potential technical solutions, associated resources, and impact on implementation of commercial fisheries data, before a solution can be agreed.<br><br>The WGRFS, RCG NA and ICES Data Centre need to work closely together to develop this document. Funding can then be investigated and an implementation plan approved by ICES. |
| **Follow-up actions needed** | 1. WGRFS to provide ICES Data Centre with the list of fields and values associated, along with user requirements by 21 September 2018.<br><br>2. ICES Data Centre to provide a document with potential options with associated costs and timescales for implementation by 1 October 2018.<br><br>3. ICES Data Centre and WGRFS to agree a solution and deliver a proposal to ICES by 14 October 2018.<br><br>4. ICES agreed way forwards for inclusion of marine recreational fisheries data in RDBES. |
| **Responsible persons for follow-up actions** | RCG NA<br>SCRDBES<br>WGRFS |
| **Time frame (Deadline)** | 2018 |
| **Follow up from SCRDB** | The full discussion is document in Section 3.8 of the SCRDB 2018 meeting report.<br><br>It was agreed that the ICES Data Centre will continue to discuss this topic with WGRFS. If developments are agreed upon then funding will also need to be found - ICES will produce cost estimates for these when required. |

| WGRFS (Recommendation ID 107) – Recreational Fisheries data in RDBES | |
|---|---|
| **Recommendation** | A database that brings together estimates of marine recreational fisheries catches for end users is needed as a matter of urgency. A paper that summarises the key issues and proposed solution to include recreational catches in the RDBES is provided in Annex 7 of the WGRFS 2018 report. Support is needed from ICES to resolve this issue, agree timescales, and put a solution in place for 2019. |
| **Responsible persons for follow-up actions** | ICES Data Centre; SC-RDB; DIG |
| **Time frame (Deadline)** | 2018/2019 |
| **Follow up from SCRDB** | The full discussion is document in Section 3.8 of the SCRDB 2018 meeting report. It was agreed that the ICES Data Centre will continue to discuss this topic with WGRFS.  If developments are agreed upon then funding will also need to be found - ICES will produce cost estimates for these when required. |

## 4.13  Inclusion of Diadromous Species Data in RDBES

| RCG NSEA 2018-R9 - WGBAST and WGNAS should work towards the implementation of RDBES database to store their primary data. | |
| --- | --- |
| Recommendation | The RCG recommends that WGBAST and WGNAS should work towards the implementation of RDBES database to store their primary data.<br><br>The RCG Diadromous SG noted that current awareness of the database is limited among potential end users. Therefore, the RCGRCG suggests that a formal approach to end-user groups should be made by the RCGRCG Chair to better inform them of the database, promote its benefits and request that they give detailed consideration to its use. In addition, ICES should also adopt a role in this regard, particularly as membership of such end user groups comprises both EU and non-EU participants. Because of this, non-EU members may be reluctant to participate in this initiative. |
| Follow-up actions needed | WGBAST and WGNAS to work towards the implementation of RDBES database to store their primary data. |
| Responsible persons for follow-up actions | WGBAST, WGNAS, RCG |
| Time frame (Deadline) | 2018/2019 |
| Follow up from SCRDB | The full discussion is document in Section 3.9 of the SCRDB 2018 meeting report.<br><br>In general it was felt that whilst it would be a positive step for the data to be centrally hosted there were a number of steps to be taken before agreeing whether the RDBES is the appropriate place for all/some of this data. |

## 4.14  Inclusion of Bycatch/PETS data in RDBES

| DIG (Recommendation ID 207) – Bycatch / PETS data in RDBES | |
| --- | --- |
| Recommendation | DIG recommends that the data requirements and necessary data extractions for WGBYC are included in the functional requirements for RDBES development for consideration. It is recognised that this may be a longer term solution than the initial development, but should still feature as a functional requirement |
| Responsible persons for follow-up actions | ICES Data Centre; WGBYC; SCRDB; SC-RDB |
| Time frame (Deadline) | 2018 |
| Follow up from SCRDB | Nuno Prista from the RDBES Core Group has been in regular contact with WGBYC - he presented some additions that could be made to the data model to start fitting their needs.  These will be tested and evaluated by the Core group. |

| WGBYC (Recommendation ID 132) – Bycatch / PETS data in RDBES | |
|---|---|
| **Recommendation** | WGBYC recommends the RDB Steering Group include additional fields to accommodate the new format of protected species data collection. New data fields were recommended by PETSAMP and reviewed by WGBYC (Section 6.1.1). |
| **Responsible persons for follow-up actions** | SCRDB |
| **Time frame (Deadline)** | 2018 |
| **Follow up from SCRDB** | Nuno Prista from the RDBES Core Group has been in regular contact with WGBYC - he presented additions that could be made to the data model to fit their needs.  These will be tested and evaluated by the Core group. |

## 5    The use of the Regional Database in RCGs, other groups, and projects (ToR d)

### 5.1    RCGs

Regarding the 2018 RCG data calls, most of the member states provide the requested data:

- for the Baltic Seas, all the 8 concerned countries have uploaded landings, effort, and sample data,
- for the North Sea and the Eastern Arctic, 16 MS out of 18 have uploaded landings, effort, and sample data. Two countries didn't or provided incomplete information,
- for the North Atlantic, 15 countries out of 16 provided complete landings data, while 6 of them didn't provide sample data.

The review of the work done using the RDB data in the three RCGs in 2018 highlighted a common approach: each RCG built up a "fishery overview" using the RDB landings data based on tables, bar plot, and maps. Landings data are presented by a combination of categories belonging to species, countries, metier and time.  The details of the work can be found in the individual 2018 RCG reports (https://datacollection.jrc.ec.europa.eu/docs/rcm).

The R scripts used to do this are loosely maintained, and their use heavily depends on the meeting attendance. FishPi2 WP1 is addressing this issue.

There is a need of clarification of:

- intersessional work and identification of people with knowledge to run the fishery overview,
- a way to efficiently share open code (e.g. CC or GPL see **https://opensource.org/licenses**) using version control system (like git see **https://github.com/** or **https://gitlab.com/**),  and
- to address the needs of end-user to avoid duplication of work (e.g. assessment working groups compute fishery overview based on Intercatch outputs).

### 5.2    FishPi2 WP6

FishPi2 WP6 will be creating an R data structure based upon some of the RDBES data hierarchies - this should feed into the RDBES estimation workshops.

# 6    Fisheries and sampling overviews (ToR e)

The RCB Baltic, NS&EA and NA have, during the last years, made efforts to create overviews of fisheries and sampling based on the data submitted by the Member States in response to the RCG data call. The objective of the overviews is to get a better collected, cross country, understanding of the fisheries in the different regions and samples available for different stocks. The overviews are important for the RCG work, as a basis for evaluation of the sampling coverage on a regional scale and in attempts to move towards regional sampling plans. The overviews have also the capacity to support data compilation workshops preceding ICES benchmarks as there is a possibility to get comprehensive information on available samples from commercial fisheries. However the present RDB does not allow biological samples (CS table) and length frequencies (HL table) to be raised in accordance with the design in the different national sampling schemes.  This means that the result of sampling, such as length at age, cannot be directly compared across countries and sampling scheme.  For stock-coordinators and assessors it might be of importance to get an understanding of the amount of available samples.

In 2018 the RCGs, in response to suggestions from the EU FishPi2 project, altered their ways of working. Future work will to a larger degree be carried out in task-specific intersessional sub-groups - one such sub-group has the task to develop more generic fisheries and sampling overviews.

The SCRDBES reviewed the fisheries and sampling overviews done so far by the RCGs and had a discussion with ICES Secretariat (Lotte Worsøe Clausen) on parts that could be useful for stock-coordinators/ assessors and/or support the benchmark process. There was support for the way the fisheries and sampling overviews are developing and it is considered to be useful. The report must be easy to access and to understand. It is not presently advisable to include comparisons between countries', for example, length at age as the results might be dependent on sampling design – however this comparison should be possible in the future RDBES.

The SCRDBES suggest the following:

**Suggestion of a Standard Report by stock (or group of stocks)**

- The result should come out as a mark down report in R.
- The information in graphs should also be available in tables
- The report should be dynamic, meaning that there is a default setting on resolution (métier level 5, year, division/subdivision (tables) but the resolution can easily be changed (if needed) to métier level 6, quarter/month, rectangles etc.
- There should be a possibility to have graphs of specific interest for given stocks (e.g. mixed fisheries, uptake of selective gears etc. ). There should be a selection of graphs to choose from.

**The fisheries (CE, CL data)**

- Bar plot with development of catches (landings) by country over years
- Bar plot with development of catches (landings) by métier over years
- Map of landings for the most recent year (by rectangle and country)
- Bar plot with development of effort (kWdays) over year by country
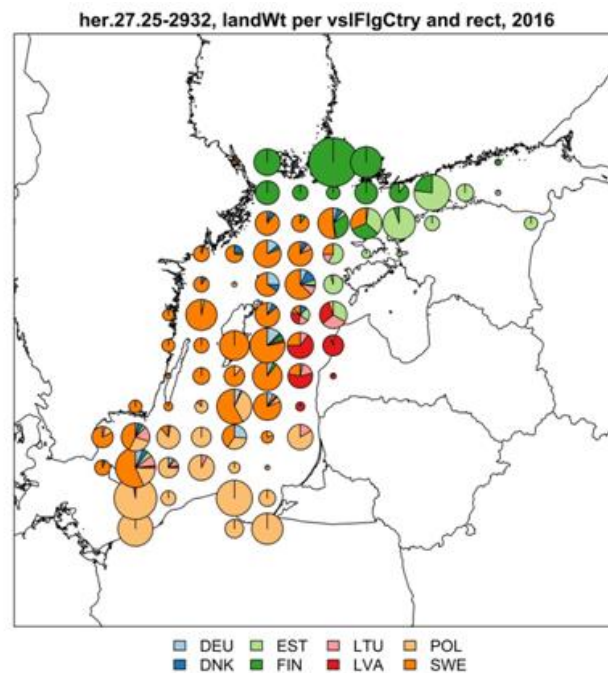- Map of effort for the most recent year (by rectangle and country)

**Figure 2 Example: Landings of central Baltic herring by country and rectangle 2016**

## The sampling of the stock (CE, CL and CS data)

- Bar plots with landings and sampling (landings, discards, lengths, ages and maturity) over years by country
- Map of landings with an overlay of sampling (landings) for the most recent year
- Map of landings with an overlay of sampling (discards) for the most recent year
- Map of landings with an overlay of sampling (length) for the most recent year
- Map of landings with an overlay of sampling (age) for the most recent year
- Map of landings with an overlay of sampling (maturity) for the most recent year
- Heat map with information on landings by métier, country and sampling (useful for imputations and burrowing)
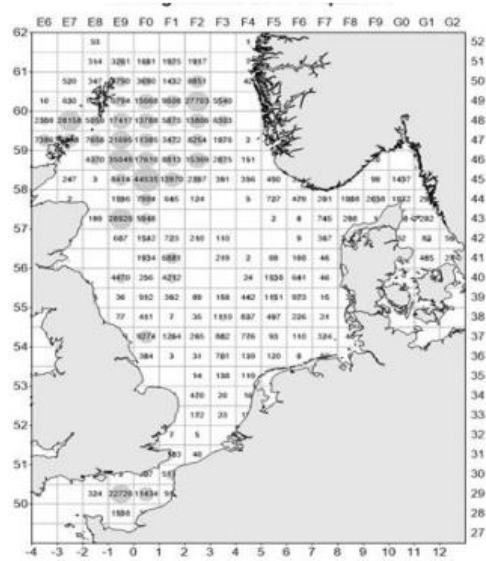
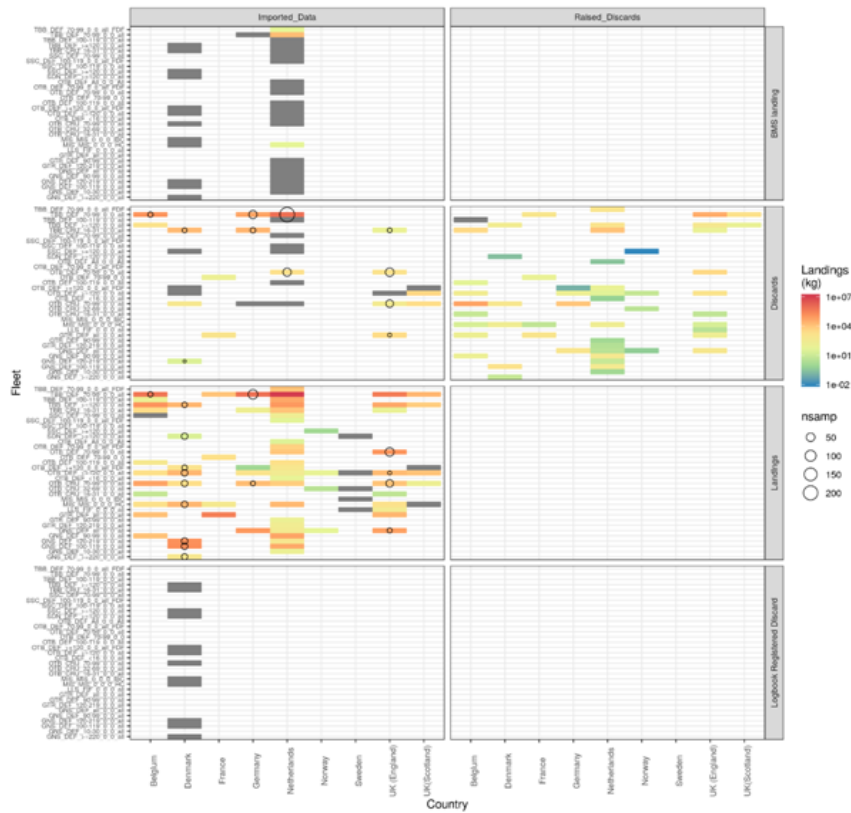**Figure 3 Example: Landings vs number of measured fish**



**Figure 4 Example: Heat map for plaice in the North Sea**

**Stock specific plots / special requests**

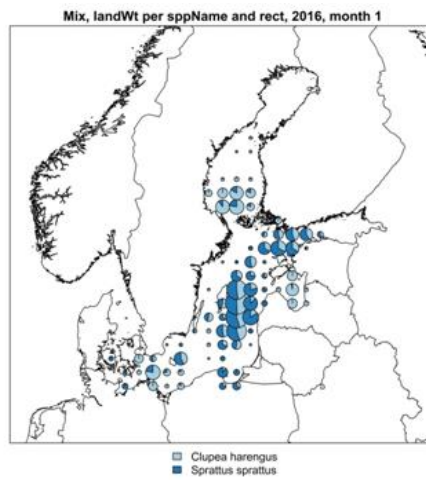- Fisheries/ stock specific maps and/or bar plots



**Figure 5 Example: Mixed fisheries- sprat and herring catches Baltic January 2016**
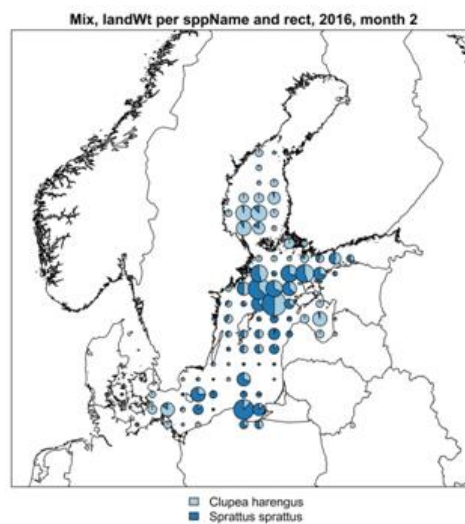


**Figure 6 Example: Mixed fisheries- sprat and herring catches Baltic February 2016**

## 7    Timing of the RDBES Data Call (ToR f)

The timing of the RCG data call was discussed in light of the RCG recommendations. It was felt that the recommended deadline of 1st March was too early and would mean that MS would need to re-upload data later in the year because it would not have been complete/finalised by 1st March.

It was agreed that an RCG data call with a deadline of 1st April (2 months before the RCG meetings) would allow enough time for the RCGs to use the data to prepare reports, and circulate them, ahead of the June meetings whilst still allowing enough time for MS to prepare the data. If the HAWG or any other assessment working group needs data earlier than this, then they should specifically request it in their data call.

# 8 Feasibility of using the RDBES data model to populate the DCF National Report tables (ToR g)

RDBES aims to be a storage place of commercial fishery samplings. The ability of the RDBES to populate the DCF Report tables is then linked to the DCF tables related to sampling information, namely:

- Table 1A (list of required stocks): population data in the RDBES can provide average landings by MS, reference years, species, region, and area.
- Table 1C (sampling intensity for biological variables): sampling related tables in the RDBES can provide the achieved number of individuals measured and samples by MS, year, species, area, sampling protocol at the national and regional levels for the targeted variables.
- Table 2A (fishing activity variables data collection strategy): sampling scheme related tables in the RDBES can provide the data collection scheme, its achieved coverage and probably its response rate. Part of the technical information (fishing techniques, length class, and metier) can be recovered using the RDBES as well.
- Table 4A (sampling plan description): sampling scheme and sampling tables in the RDBES can provide the number of primary sampling units achieved with the corresponding number of vessels, fishing trips, length measurements by sampling scheme, species, years and area.
- Table 4B (sampling frame description): sampling scheme tables in the RDBES can provide a partial explanation of the sampling frame (stratum, description, and methods of PSU selection based on the documentation of the RDBES hierarchies.

For the table 1D (recreational fisheries) and 1E (anadromous catadromous, 1F (incidental bycatch), the inclusion of the related information in the RDBES is still in discussion, and consequently the ability to populate these tables will be assessed later.

For the tables 4C (data on the fisheries), 4D (landing locations) the population data of the RDBES could provide the requested information, but population tables are not yet defined.

For the table 5A (quality assurance framework), the intrinsic upload of the national data into the ICES RDBES, and the way the data compilation and imputation will be documented, reviewed and transparently available at the stocks level, will probably lead to the completion of this table inside the RDBES facility.

The information regarding the data availability (table 6A) for the commercial sampling data will follow the same process.

It should be noted that

1 ) The RCGs have now organized inter-sessional works related to this specific task for the year 2019,

2 ) This review is only putative for now as the RDBES system is not yet operational. An update of these considerations has to follow the technical implementation of the RDBES.

## 9    Scope of the SCRDBES (ToR h)

The scope of the SCRDBES was discussed, in particular whether the group could answer fisheries data questions that were not directly related to RDBES. It was agreed that this could provide a useful forum for the RCGs in particular but that the SCRDBES might not have the expertise to answer every question. It was also highlighted that even if the SCRDBES could provide an answer there might also be other groups that could provide a better, or more informed answer. This will be very dependent on the actual question asked.

It was agreed that a small sub-group of the SCRDBES would consider these types of questions and then agree on a response. The types of response could include:

- Answer the question immediately
- Answer the question after talking to the rest of the SCRDBES
- Direct the question to a more appropriate group e.g. a different ICES expert group
- Ask that the question be raised as a formal recommendation

This response will be on a "best efforts" basis and shouldn't be taken as a formal recommendation or output of the SCRDBES.

The small group should include the SCRDBES chair(s), ICES Data Centre representative(s) and 1 or 2 other SCRDBES group members. The initial group shall be David Currie, Katja Ringdahl, Neil Holdsworth, Henrik Kjems-Nielsen, and Edvin Fuglebakk.

## 10    Review of the RDBES Data Policy (ToR i)

The current data policy was accepted by MS during the 2018 RCG meetings and should be published by ICES. The SCRDBES do not think that the annex describing how the RDBES data can be used and/or published is perfect but it is better to make it available and allow MS to give feedback.

The Data Policy allows groups that have access to aggregated data to request access to detailed data - this currently is done by ICES writing to each country/MS and asking whether they give approval. It was agreed that countries/MS can also give pre-approval for access to detailed data i.e. a National Correspondent can write to ICES and state that all pre-approved ICES groups can have access to both aggregated and detailed data. This pre-approval will allow the RCG BS MS to give all relevant ICES groups access to the detailed data without requiring a change in the RDBES Data Policy.

The Commission raised the issue of data use, which is now presented in annex 2 of the Data Policy document and which needs to be further refined, to give information on who has access to the data (use and download) throughout the stock assessment process. The Steering Committee agreed that annex 2 will probably be amended during the next round of revision but will be published at this time together with the current Data Policy. Comments should be given to the Steering Committee for a future revision.

The SCRDBES did not make any alterations to the Data Policy at this meeting.

In addition to the general discussion a MS also asked some specific questions - these are answered here:

**Question**:

In the Data Policy reference to EU legislation is made. The EU Regulation 1004/2017 is cited and taken for most of the concepts. But, if we are not wrong, in this RDB will take part other countries that are not EU MMSS. How is intended to be managed this? Or this RDB will be only dedicated to EU MMSS?

*Answer:*

EU MS need to follow EU regulations, but non-EU countries are not bound by the same legislation. However even if a country is not required by EU legislation to upload data, once they do upload data then they are still bound by the same RDBES Data Policy as EU MS.

There are some specific cases where EU MS have a legally defined time limit to respond to a data access request - in this case the non-EU countries do not have to respond within the same time-scale.

**Question**:

Also, we have some doubts in some of the concepts, such as "Detailed Data Reader". Besides the National Responsible, which we assume is the National authority (i.e., the NC), this "detailed data reader", will have access to most of the data contained in the RDB (detailed, aggregated and inventory).

Going deeper into this, if some of the other roles wishes more information than what is granted according to his/her role, will ICES ask to the MS concerned prior to the release of the information?

*Answer:*

The "National Responsible" means the country that uploaded the data - in this case, of course, they can view and download all of their own data.

RCGs are also given read access to the relevant detailed data - normally ICES create an extract of this data and make it available on the RCG's SharePoint site. So, RCGs are "Detailed Data Readers".

Pre-approved ICES Groups are given access to aggregated data - they are "Aggregated Data Readers". A group from this pre-approved list can request access to the detailed data (i.e. become "Detailed Data Readers") only by asking permission from all the relevant MS/countries - this request will be sent via ICES. The MS can choose to give or withhold permission.

An entity that is not on the pre-approved list can also request access to aggregated and/or detailed data. Permission for this must be requested from each relevant MS/countries - this request will normally be sent by the Expert Group chair and the positive approvals must be forwarded to ICES Data Centre. The MS can choose to give or withhold permission.

## Annex 1: SCRDBES, Agenda and ToRs

| | | | |
|---|---|---|---|
| TUESDAY 4TH DECEMBER | 13:00 - 13:30 | PLENARY | WELCOME, HOUSEKEEPING, AND TOR a "STRUCTURE" |
| | 13:30 – 14:30 | Plenary | ToR b "RDBES Status Update" |
| | 14:30 – 15:30 | Plenary | ToR i "Data Policy" |
| | 15:30 – 16:00 | | Tea/Coffee |
| | 16:00 – 17:00 | Plenary | ToR f "Data Call Timing" |
| | 17:00 – 18:00 | Plenary | ToR d "RDBES Usage summary" |
| Wednesday 5th December | 09:00 – 09:30 | Plenary | Recap, and plan for day |
| | 09:30 – 13:00 | Plenary | ToR c "Recommendations" |
| | 13:00 – 14:00 | | Lunch |
| | 14:00 – 14:15 | Plenary | Confirm sub-groups |
| | 14:15 – 17:30 | Sub-group 1 | ToR e "Fisheries Overview" |
| | | Sub-group 2 | ToR h "SCRDBES Scope" |
| | 15:30 – 16:00 | | Tea/Coffee |
| | 17:30 – 18:00 | Plenary | Present sub-group work and plan for to-morrow |
| | 19:30 | | Social dinner |
| Thursday 6th December | 09:00 – 09:30 | Plenary | Recap, and plan for day |
| | 09:30 – 11:00 | Plenary | ToR g "National Reports" |
| | 11:00 – 11:30 | | Tea/coffee |
| | 11:30 – 13:30 | Plenary | Deal with any outstanding issues and prepare report text |
| | 14:00 | Plenary | End meeting |

**ToRs:**

a ) Explanation of new unified SCRDBES group structure.

b ) Review the status of the development of the new RDBES and its project plan for implementation, including discussing the funding of the outstanding development. Review feedback summaries from MS about their attempt to populate the RDBES data model. The "Core Group" has a heavy workload in this development – can this group of people be expanded.

c ) Respond to recommendations put forward to the SCRDBES by the Regional Coordination Groups (RCGs) via the Liaison Meeting, and ICES expert groups.

d ) Summarize how the RDB has been used in the RCGs, along with any other uses (e.g. the FishPi2 project). Discuss how the code is being shared from these different uses.

e ) Summarize the progress on fisheries and sampling overviews developed by the RCGs and identify if these can be of use in ICES assessment groups and benchmarks.

f ) Agree the new timing of the RDB Data Call. The RCG technical meeting will be moved earlier in the year so it will be necessary to move the RDB data call earlier as well.

g ) Review the feasibility of using the RDBES data model to populate the DCF National Report tables.

h ) Discuss the scope of the SCRDBES. At the RCG meetings there have been discussions relating to the storage and management of recreational fisheries data, by-catch data, métier data, and the confidentiality of VMS data. These data are not stored in the RDBES but should the SCRDB provide a lead/advice on these RCG data management issues?

i ) Review the RDBES Data Policy.

## Annex 2: SCRDBES 2018 meeting list of participants

| NAME | INSTITUTE | COUNTRY | EMAIL |
|---|---|---|---|
| Alan Walker | Cefas | UK | alan.walker@cefas.co.uk |
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**\* Part-time via WebEx.**

## Annex 3: Recommendations

No recommendations from the meeting.