Report of the Regional Co-ordination Group for the North Sea and Eastern Arctic (RCG NS&EA) 2018

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Executive Summary

The Regional Coordination meeting NS&EA met in Lyngby, Denmark from 3rd to 7th September 2018. 39 participants from 12 members' states and representatives from Commission and ICES were participating. In this year's RCG NSEA 12 participants from the diadromous, salmon and trout group were attending the meeting, specially invited to this sub group. The meeting was largely devoted to subgroup work relating to:
A) Data quality, impact of management measures on data collection and Incidental by-catch,
B) End-user interaction and surveys
C) Rules of Procedures and
D) Diadromous species and recreational fishery

In the RCM NS&EA 2016 and 2017 several sub groups were established and the intersessional work conducted in 2017-18 was presented during this year's meeting.

Allthough, the sub group on Diadromous species (salmon and trout) participated in this year's NSEA RCG, due to the scheduling of WGEEL in the same week as the RCG NSEA, the DSG eel experts was meeting at the RCG Mediterranean in Kavala, Greece, September 18th-20th 2018. A report of that meeting will be included in the RCG Mediterranean report. Based on the elaborated recommendations, the Diadromous subgroup produced a first draft of a list of data needed to assess status and provide scientific advice for salmon stocks in the North Atlantic and the Baltic Sea. Further, the subgroup made recommendation to the relevant assessment groups to consider quality aspects and possible needs for coordination of the data collection between countries, including standardization of methodologies (e.g. age reading, electrofishing and methods to estimate smolt abundance), which is presently not the case. For Sea trout the subgroup suggested postponing compilation of data requirements until WGTRUTTA has finalized its three year term as the assessment methods is under development and the data needs is presently unclear. Also, the subgroup recommended that the RDBES should be used also for storing the diadromous data, however, this is not possible in the present version of the RDB.

The pan-regional sub group on end-users needs had an intersessional meeting with ICES in March 2017 where a road map on future work was developed. It was further suggested to focus on two presently used processes to increase the communication between the end users and data providers: the benchmark process and the data calls. Further, there were discussion on how to improve the communication and it was suggested that if data call, benchmark lists, issue list and data needs were available on the ICES homepage this would improve the timing in the communication. As part of last year's end-user meeting with ICES it was discussed that the RCGs should produce fisheries overviews and stock overviews for stock to be benchmarked. As no stock was to be benchmarked after the RCG NSEA in 2018 only fishery overview were produced during this years meeting.

During this RCG meeting the end-user sub-group continued the work conducted in preparation for updating the EU-MAP table 10. An STECF meeting (WG 18-04) were conducted in May 2018 and as an outcome a decision tools (DST) were developed which should be used in the process judged if a given survey should be mandatory and included in the table 10. The DST is building on the information produced in last year's RCG (stock and survey table) but were new information were required. The end-user sub group started the work on populating the stock and survey database and passed the database to the RCG NA. During the population of the 2 new databases the RCG realised that some of the columns are only possible for the Member states to populate as the information will be vessel specific and some of the information can only be populated by ICES survey working group. This recommendations have been highlighted.

The RCM also received presentations of the follow up of LM 2017 recommendations and of the work of expert groups and end-users from 2017-18: PGDATA, WGCATCH, WGBIOP, SCRDB, WKRDB, WKBIOPTIM, STECF, ICES and the COMMISSION.

The next meeting is planned to be held in Ghent, Belgium, with co-chair Els Torreele and Leonie O'Dowd the suggested date is 3 to 7 June 2019.

1. Brief review progress since 2017 RCM's and 2017 Liaison meeting

With the adoption of the DCF (recast) the role of the Liaison meeting has changed compared to the prevision DCF period 2009-2016 as the legislation has changes from being an official forum where recommendations from the Regional Coordination Meetings (RCM) were reviewed and if endorsed MS should take these recommendations into account when conduction their national program.
According to the DCF article 9 (6) "Regional coordination groups shall coordinate with each other and with the Commission, where issues affect several marine regions".
In addition to the provision mentioned above the Commission has established an Expert Group on Fisheries Data collection (E02750). The mission of this expert group is to assist the Commission in the implementation of the (DCF) concerning the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy. Some of the tasks of the expert group or sub-groups are to:
Coordinate and share information with Member State representatives in the implementation of DCF including:

- experts on social and economic data for fisheries, aquaculture and the processing industry;
- experts on regional coordination of biological data collection, management and use under the DCF;

Therefore, the new role of the Liaison meeting is as an expert group to assist the Commission on data collection issues.
At the Liaison meeting the representatives from the RCGs, relevant expert groups and DCF data end-users presented their work and findings relevant to the EU fisheries data collection. Further, the Rules of Procedures for the RCGs have been adopted for all groups except for the PGECON. This group is regarded as the RCG for collection of economy data for the fisheries and aquaculture sectors. The adopted RoPs differ between RCGs, but whether this will have an impact on cooperation between the RCGs is not yet known.
The upload of data and the use of the regional database (RDBES) by the RCGs (Baltic, NSEA and the NA) has constantly been increased. It is incontestable that the RDBES is a prerequisite for regional cooperation and coordination.
For years, the structure and number of RCGs (RCMs at that time) has been debated over in the light of improving efficiency and reduction of the number of meetings. This discussion mainly focused on the three 'Northern' groups. At LM 2017, the other groups, RCG LDF, RCG MED and well as RCG LP expressed the wish to remain under the current scope.

For the 'Northern' groups, combining RCG NS&EA and NA seems most obvious, this merge could however not be decided upon at the LM without additional consultation of the groups. Recent pan-regional work in the subgroups clearly indicate that the RCGs are already moving into improved regional cooperation, paving the way for further integration while keeping an eye on specific regional aspects. Restructuring the RCGs is part of the current MARE/2016/22 call. The RCGs will reconsider the composition of the meetings in the light of the outcomes of the call. Sieto Verver (chair RCG LDF) will ensure reporting specific ideas to the RCGs coming from the call.

Proposal for study proposals was again put forward to the Commission. The proposals were:

- Further development of the Regional Database (RDB) – now called Regional Database and Estimation System (RDBES)
- SmartDots, a tool for age reading and maturity workshops & exchanges (replacement of WebGr)

A number of recommendations were put forward to the LM 2017. These recommendations were mostly directed to the groups themselves or to data end-users. The LM did not comment on these recommendations. In Annex 5, a review of the relevant expert meetings related to regional coordination is given and in Annex 4 the status of the recommendations RCGNSEA 2017.

2. Short feedback of RCG intersessional groups

Intersessional subgroup on cost sharing surveys

During the 2017 meetings, an Intersessional subgroup on cost sharing was established to:

- Define the appropriate mandatory survey TAC shares by MS, based on the target species and stocks by survey weighted by the MS share on the TAC for the same stocks/ species
- collate current survey effort by MS by survey
- cross check shares vs survey effort
- propose possibilities for future arrangements on survey-by-survey basis as well as on the regional basis
- communicate findings to the relevant NCs.

These tasks however, are heavily dependent on the above mentioned review of survey. As this review was postponed, the intersessional work was not done in 2018 but will continue in 2019.

Intersessional subgroup on Landing Obligation

In 2016 the RCMNA proposed an intersessional task group to continue monitoring the impact of the Landing Obligation (LO) on data collection and catch estimates. This work was extended at a pan regional level for the Northern regions reporting at the 2018 RCG.
A questionnaire from the RCM NA in order to capture the practical issues and perceived concerns relating to current and pending discard plans was amended to cover the species/fisheries/fleets under the obligation in the North Atlantic, Baltic and North Sea. The returned questionnaires were analysed and a full report, including the summary of the returned questionnaires is available in section 9 and Annex 13.

Intersessional subgroup on End-users need

In the legal text of the DCF recast (EC) No 2017/1004 and EUMAP (2016/1251/EU), multiple references are made to data collected at regional level based on “end user needs” (see articles of EUMAP). This requires close collaboration between RCGs, tasked with the regional coordination of data collection and end users of the scientific data. In March 2017, the chairs of the Northern RCGs (BALTIC, NSEA and NA) initiated a dialogue meeting with ICES as their main scientific end-user to establish a framework that facilitates the feedback between data collection and data requirements. The objectives for this initial meeting was to:

- start formalising a framework of communication between data providers (RCGs) and data end users (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.

Following the meeting in 2017, it was agreed that the chairs of the RCGs continue this dialogue as a pan-regional and intersessional subgroup with the following ToRs as presented in the 2017 Liaison report:

The objective of the meeting 2018 between the RCG chairs and ICES was to continue the process between ICES and the RCGs to improve the dialogue and feedback between data providers (RCGs) and data end users (ICES) and specifically to review the agreed actions from the 2017 meeting on benchmark process, data calls and surveys and agree on next steps. The report of the end-user meeting can be found in Annex 7.

Intersessional subgroup on Diadromous species

The Diadromous fish Sub Group (DSG) met at the Regional Coordination Group North Sea & Eastern Arctic (RCG NSEA) in Lyngby, Denmark, from September 4-6 2018. The sub group was attended by 12 experts on Atlantic salmon and sea trout, plus one expert who joined the meeting on Wednesday September 5th via Skype. The experts represented ten countries, from both the Baltic and Atlantic areas.

The draft ToRs relevant to Atlantic salmon and sea trout were discussed and agreed by the sub group in plenary, before allocating tasks to individual members. It was decided to structure the report (see section 10 and Annex 14) according to the ToRs with a slightly changed order, so a particular line of logic was followed.

Intersessional subgroup on Core RDB

The development of the Regional Database and Estimation System, RDBES, started in the spring 2017 and the Steering Committee of the RDB, SCRDB, established a Support Core Group, which should specify the needs, so ICES Secretariat could development the new RDBES according to the needs. The Core Group have since worked on specifying the data model for the sampling of the commercial fish species, which should be able to support all countries sampling of all species. Details and a full report can be found in section 6.1.RDB & RDBES - further steps towards DB development.

Intersessional subgroup on Data

According to the LM 2017 Report "*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."*

Some ToRs were set forth by LM 2017 but intersessional progress was not achieved by the RCG Data subgroup. However, many of its members have remained active in the development of code for regional analyses within projects like fishpPi2 and/or, worked independently in the development of code used at different RCGs. RCG NSEA 2018 discussed the reasons for lack of development of intersessional work by the Pan-regional data subgroup when compared to other subgroups that produced intersessional work and results (e.g., the landing obligation subgroup). It was considered that the appointment of one or more chairs could be useful to steer the participants work but also that a clear set of tasks or ToRs should be set to guide by RCGs to guide the development; Finally, formal RCG commitment of a number of members may be required to secure the time for intersessional work to be carried out on those ToRs (see further section 5&6 and annex 11).

In 2017 RCG NSEA created a GitHub repository to host the R-code and functions used in its RCG work. RCG NSEA 2018 continued this work improving the available functions and creating a general script that generates graphs and maps that can support RCG in the future (see Annex 15). Both script and functions are publicly available in the RCG NSEA GitHub and RCG NSEA SharePoint. It is suggested that other RCGs organize their work similarly and that formal ToRs are set for the RCG pan-regional data group to coordinate code development across RCGs, ensuring that it is organized and readily available.

3. RCG Governance model

The National Correspondents (NCs) of the following member states were present at the discussion on the points addressed in the chapter; Belgium, Denmark, Finland, France (by WebEx), Germany, Lithuania, the Netherlands, Poland, Sweden and the United kingdom. Spain was not able to attend due to clash of meetings in the agenda.

3.1. Feedback on Rules and Procedures for RCGs

The different RCGs have adopted different Rules of procedure. However, to have a more consistent approach, it make sense to have one document applicable to all RCGS.
An overview of the differences between the Rules of Procedures of the different RCGS will be presented during the upcoming LM 2018. In Annex 8, the ROP of the RCGNSEA is attached.

3.2. Outcomes different EU Projects

FishHub
DGMare informed all National Correspondents by mail on Thursday the 25th of May 2018, that DG MARE terminated the "Fish Hub" (Availability and dissemination of DCF data) MARE/2015/04 study.

The project, launched in December 2016 for a period of 20 months, was aimed at mapping available data, evaluating end-user needs and identifying gaps/improvements needed to improve data availability through one single access point, to be tested through the Fish Hub prototype/pilot.

Throughout the development of the first part of the project, a number of obstacles in the fulfilment of the terms of reference have been identified, which have hampered the delivery of expected results.
After thorough analysis of the further prospects of the project midway, it was the consensual decision of DG MARE and of the contractor that, in view of observed impediments, the contract should be stopped at this time.

A number of underlying aims of the project related to data dissemination are already being pursued through other initiatives such as the regional grants or the development of regional databases.
DGMare will keep the National Correspondents informed on the potential follow-up initiatives in the future and on other ongoing projects.

Cooperation on proposal for studies to be funded by the direct management EMFF funds
In alignment with the above, the RCG NSEA has a suggestion for cooperation with the EC on proposal for studies to be funded by the direct management EMFF funds, .
With the adoption of the recast (EU regulation 2017/1004) of the DCF a new possibilities for cooperation between the MS through the RCGs and with the Commission exists (Article 9, 6). Furthermore, with the new organization of DG MARE the RCG NS&EA are looking forward to a constructive cooperation where the RCG's and the Commission working together towards improving EU fisheries data collection and towards improving cost efficiency. Throughout the years' experience has been gained and MS and the Commission has learned that tools like data bases and software packages for analysis collected data are having a significant positive effect for the fisheries data collection. It has also been realized that some tools like a regional or pan-regional database are a prerequisite for regional data collection.

The RCG NS&EA is looking forward to fruitful cooperation with the Commission.

The RCG NS&EA is proposing the following two project proposal to be considered funded though the EMFF direct management funds assigned for support for the DCF fisheries data collection:

- Further development of the Regional Data Base and Estimation System
- Further development of SmartDots – a tool for age reading and maturity workshop and exchanges.

A full description of the two proposals can be found in the 14th Liaison Report 2017 (https://datacollection.jrc.ec.europa.eu/docs/rcm/2017).

3.3. Decisions as follow-up from intersessional work/subgroups

No decisions needed to be taken as follow-up from intersessional work of subgroups

3.4. EUMAP 2020 & beyond

Oana Surdu from the EC held a presentation about the EUMAP 2020 & beyond. The RCG considers the process still somewhat unclear and will request a timeline from the EC.
It is stressed by the RCG that the legal background needs to be in time and more optimal so there is enough time to draft new work plans and to have a good reflection of the financial impact. If the EUMAP is extended for one year (2020) this needs to be done by the 1st September 2019 to have one month for the work plan. After the revision of the EUMAP two months will be needed for drafting a new work plan.
The EC plans to align the EUMAP with the new EMFF in 2019. In the proposal for the EMFF it is stated that a MS at least has to spent 15% of EMFF on DCF & Control Regulation. As the amount available for the DCF is not clear it is difficult for MS to engage in an implementation of data collection.
The RCG would like to be pro-active and not await the proposal of the EC as there can be some improvements in the tables of the EUMAP. This could be done by a pan-regional subgroup.

The following requests are done to the EC:
The RCG requests/stress that a clear and profound consultation and feedback is sought from the RCG and MS, on revision on the tables.
The EC is requested to establish and sent a timeline to the NCs & RCG on how the EC sees the planning for EU MAP 2020. The RCG sees a clear link with the revision of the EMFF.
The RCG requests to have two months for writing a new WP, and therefore needs to have a final text at latest 2 month before the deadline of submission of the work plan.
The following points will be addressed at the LM:

- The RCG NS&EA suggests to establish a pan-regional subgroup 'RCG – EUMAP 2020 & beyond to revise the tables. One person per MS is requested to participate and the expertise relevant for the RCG need to be covered. The work will be done by correspondence with one physical meeting ex in January 2019 (depending on the final timeline established by the Commission).
- The Chairs of the RCGs will be asked to design ToR for SG EUMAP 2020 & beyond.

3.5. AOB

RDBES Data policy
The data policy for the RDBES has been revised. This goes hand-in hand with the recast of the DCF. Although there are no major changes, comments are requested. Official approval will be requested by the LM meeting. Feedback can be sent to David Currie (David Currie David.Currie@Marine.ie) by the 1st of October.

Restructuring of RCGs
The idea of restructuring the RCGs NSEA and NA into one RCG with subgroups by topic (see WP1 FishPi2) has been discussed and is received positively.
A new marine region would be necessary as it is stated in the DCF (2017/1004 art. 9) that each marine region should have a RCG. This needs to be discussed with the EC.
Some more practical aspects were also discussed such as if limitation of the number of experts would be necessary and the timing of the restructuration. This would be more easily when the working methods are better developed i.e. the structure of subgroups & its functioning.
The RCG suggests to start in 2019. This point will also be discussed at the RCG NA.

FishPi2 WP1
The first output of the FishPi2 WP1 was presented to the NCs by Katja Ringdahl (see Annex 10).
An approach for **guidance in developing regional coordination** was presented and requested for advice and agreement from the NCs, i.e.:

- Better consider the complexity of management of personal resources across MS in future RCG work
- Make institutes responsible to tasks to a larger extent (in contrast to individuals)

- Make RCG work more visible, traceable and career promoting
- We need to consider regional work plans in a broader perspective than regional sampling plans

All NCs present at the meeting, as well joining by skype, agree and support the approach presented. The approach needs to be brought to the other RCGs and the details need to be looked at further once all NCs form different RCGs approve. In Annex 11, a more elaborated document is available.

Revision of the control regulation

The RCG also highlighted proposed changes to the Control Regulation to make it more GDPR compatible. Article 112 (3) of the Commission Proposal limits the storage of personal data to 5 years, except in the case of data used for complaints, infringements and inspections in which case storage can be for 10 years. Where information is retained for a longer period it would need to be anonymised. These provisions and the duration will be discussed in European Parliament and Council and if the co-legislators consider that those periods are too short they may amend them.
The NCs will flag the need for a longer storage period to the national bodies involved in the revision.

Set up of a secretariat for the RCGs

The proposal (annex 6) about the setting up of a secretariat for the RCGs has been discussed. The RCG has mixed opinions about the proposal. The idea is received positive but it is considered as too early. The RCGs need to be further developed into the new 'system' before a decision can be made. It is difficult to describe the tasks of the secretariat at this moment and a clear picture of what, how and for whom it should be is needed as well as long term planning and budget required. For good communication a dedicated website with all reports and links to the RCGs would be beneficial.

4. End-user interactions and identification of end-user needs

4.1. Feedback of end-user needs from ICES

Proposal on process for discussion and implementation of adjustments to National Work Plans requested by end-users [RCGNSEA]

Under the EU-MAP RCGs have responsibility for regional coordination at marine region level of data collection activities (chapter III; 1.3, 2 (a; (i, ii, iii, iv) c iii), 3 (a), 3(c); chapter IV, 3). As such, they constitute a forum for discussion of MS and end-user needs. Those needs are anticipated to arrive to RCGs in the form of recommendations (e.g., from ICES EGs) and may range from minor (impacting only one end-user, having no side-effects in terms of data quality of other variables, having little to no changes cost or human resources) to major (impacting various end-users and estimates, implying significant changes in cost and human resource allocation). E.g., of a minor request may beto include sex on a given species were age is already taken. An e.g., of a major request may be extending data collection to an additional group of species, extending programme coverage to a new fleet or geographical area, changes to research surveys, etc.
For effective and timely decision making, the procedure for consideration and decision making of those requests – which framework is outlined in the Rules of Procedures of each RCG – must be clear not only to the decision makers but also to the ones that request. Also, guidelines are needed on how the request should be framed and substantiated. A successful process involves a clear request, a good decision, and e.g., an implementation in a MS NWP. An unclear or unsubstantiated request to an RCG plenary will lead to fruitless discussions and loss of precious time by RCG members. These discussions will likely be inconclusive and not result in any action thus frustrating the expectations of who has requested. This is something RCG NSEA (and all RCGs in general) should avoid.

Recommendation RCG NSEA 2018:

With regards to the procedure, the subgroup considers that when an end-user has a request or recommendation to RCG the following route should be followed

- Timely communication with RCG chairs and circulation ahead of the meeting

- Minor requests involving simple decisions should be put to discussion and answered in the next RCG meeting
- Major requests involving more complex decisions will likely require the planning of intersessional work (e.g., by an RCG subgroup) at the next RCG meeting with feed-back for decision in yr+1

In case there are many requests, it is up to the RCG chairs to guide the prioritization of the requests discussion in plenary. Less significant requests may have their discussion postponed to next RCG meeting. Those **submitting the request will be informed of the decision.**

With regards to the requests themselves, the subgroup used an example during its discussions from which it extracted some preliminary best-practice.

- Recommendations should have a clear title, a clear background and justification and, particularly a clear set of goals and/or actions that the requester wishes the RCG to take.
- Where applicable it will be beneficial for discussion that the request is accompanied by a stand-alone document, documenting its legal framework, background analyses, discussion of possible end-uses affected and benefits of implementation. Examples are given in Table Annex 10.

4.2. Overview from the RDB on regional fisheries

Lack of time and lack of data crunching participants limited the development of this task which, ideally, should be done ahead of the meeting by the data subgroup. During RCG NSEA an attempt was done by one of the participants to still produce it. As scripts were not available or centralized and ultimately, a new script had to be developed (see outcomes in Annex 15). The situation highlighted the need to clarify the responsibilities of the pan-regional data subgroup, and set up a process towards the centralization of available scripts (both within and between RCGs) and improve participation on the data subgroup. The result of RCG NSEA discussions in this matter have been incorporated in to a proposal on general requirements for subgroup work and, specifically, on the proposal of a new set of ToRs for the pan-regional data subgroup.

4.3. Review of issue list used for benchmarks

For the North sea there are no stocks planned for 2019 to be benchmarked.

4.4. Review of 2017 data calls and feedback from the RCGs to end-users

ICES Combined data call

- *Timing of launching the data call*: for the ICES data call, it was agreed at the end user meeting between ICES and the RCGs that the RCGs would comment on the upcoming data call. However, at the moment of the RCGNSEA was taking place, a revision of the data call was not yet available. However, it was stressed during the meeting that the timing of sending out the data call have to be early enough in time to give MS enough time to prepare the data for the data call. In 2018, the data call was late received, leading to some problems for on time delivery of data for the first scheduled WGs.
- *BMS fraction*: the reporting of the BMS fraction is a recurring problem. The reporting of the BMS fraction by a MS, is not straightforward. Although the reporting of the BMS fraction is required since several years, there is no consistent approach yet, neither between member states, neither over the years.

VMS data Call

Data call: VMS/Log book data for fishing activities in the North East Atlantic and Baltic Sea for the provision of ICES management advice on the spatial distribution and impact of fisheries 2009 to 2017

ICES using submitted VMS/Log book data to address the development of ICES advice addressing EC, NEAFC and HELCOM requests to describe fisheries activities and to evaluate the spatial and temporal effects of fishing, for example to describe fisheries activities in and in the vicinity of sensitive habitats (i.e. Vulnerable Marine Ecosystems, VMEs). It has also been used to map the aggregated distribution of fishing by different gear types. In combination with the graphical images found in the advice ICES has also publish the electronic output with information on C-square and the same has been done on HELCOMs homepage.

However, the data that has been submitted, was at a very detailed level as no national filtering (for most countries) had taken place before submitting the data. As ICES has published all data uploaded this indicates that individual vessels can be identified in the electronic version published by ICES and HELCOM.

ICES was contacted in July and explained the concern on the detailed publication level that can be used to identify single vessels. ICES closed down the link and a solution should be found on a regional level. Therefore it has been suggested that the RCGs should come up with a common agreement on a legal and expectable aggregation level. If all nations are using national rules on the upload aggregation level the final dataset will be very truncated. As an example if Denmark will have a minimum of 3 vessels per cell uploaded by the aggregation level defined by ICES we will reduce the numbers of rows submitted from Denmark by 82%.

- year and month
- C-Square
- Vessel length(<8, 8-10, 10-12, 12-15,>15 m)
- gear (fx OTB, GNS etc.)
- Métier lvl 6 (fx GNS_DEF_120-219_0_0)

The RCGNSEA 2018 has some suggestions on how to improve this by adding an additional column in the data call with numbers of unique vessels by row and using year instead of month as the temporal resolution. If subsequently there is agreement on an international aggregation level (*example: 3 unique vessels per row*) then ICES could merge information from several nations if more than 3 vessels are available and could publish the dataset without conflicting with the law of data protection.
In Annex 9 the current regulation on confidential data is listed.

This topic has been further discussed during the RCGNA and RCG Baltic, and a proposal on the publication of confidential data is described below:

Maintaining confidentiality of published personal or sensitive data is not a novel requirement and is common-place in many situations (e.g. economics and statistical agencies) – there is also a body of literature published on the subject. The RCG believes it would be best to adopt a simple, clear system that is easy to understand and implement.

The FDI group is currently considering similar issues and we should review their discussions and solution once it is published. In the meantime the following rules can be considered. Each unit of confidential data published must contain at least 3 distinct individuals - this is a reasonable balance between the public interest in publishing the data and the confidentiality rights of the data subjects. To this end:

1) Data providers should not suppress any data themselves

2) If the data request defines that data should be pre-aggregated (e.g. VMS data aggregated to c-square level) then the data providers should be requested to supply the number of unique “individuals” in each aggregated unit (e.g. the number of distinct vessels per c-square). If the data request asks for data on a detailed level (e.g. individual fishing trips) then this is not necessary.

3) The data will then be sent to the data requester (e.g. ICES) in a secure manner, and stored in a secure location with restricted access. The authorised end user (e.g. a working group) will then be given access to the data, and can use it for the agreed purpose. The data should be deleted once this purpose is completed.

4) Publication of this data (including maps/charts/tables derived from that data) must use one of the following techniques:

a. Suppression

Suppress any data that does not include at least 3 different individuals. Suppression can either be done by suppressing the unit or publishing the unit but suppressing the sensitive values (e.g. effort, value). If suppressing sensitive values then care must be taken to ensure any published totals can't easily be used to infer the suppressed value (e.g. if the value of a single unit is suppressed but the total value is also published then the suppressed value could easily be calculated).

b. Aggregation

Aggregate the data (spatially, temporally or both) such that each aggregation contains at least 3 different individuals. After aggregation if there are aggregated units that still contain less than 3 individuals than another level of aggregation can be applied, or those aggregated units should be suppressed.

When aggregating it is not always possible to simply add up the number of distinct individuals in the underlying data to calculate the number of unique individuals in the aggregated unit – this is the case when the same individuals can be present in a number of the original units. An example would be temporally aggregating VMS data to an annual basis when it was originally supplied on a monthly level – the aggregator will not know whether the same vessel was active for all 12 months, or whether there were 12 different vessels active. In this example the data could also be aggregated by country (assuming that individuals can only have a single country per aggregated unit) such that each annual aggregation must contain data from at least 3 vessels from the same country, or data from at least 3 different countries, or both.

Multiple different aggregations of the same data should also not be published since it might inadvertently reveal the confidential data.

Recommendation RCG NSEA 2018:

1. It was agreed by the RCG that the utility of the data would be reduced if Member States themselves treated data for confidentiality and this would be best done centrally by ICES before release of any outputs. This would mirror the approach adopted by Eurostat where Member States are not allowed to withhold data by reason of it being confidential but must flag confidential records to allow appropriate data treatment to be carried out.
2. RCG agrees that a minimum of 3 statistical units within a line on a regional level can be disseminated publically.
3. To be able to comply to (2.) one extra column should be added to the VMS data call identifying numbers of unique vessels within a single line. It is only possible to ensure a unique unit if data is submitted as annual.
4. Further, the RCG recommends that ICES shall only request data used for the advices produced. This indicates that the data call has to be carefully scrutinized before it is relaunched an adapted to the actual need, presently not all gears are used for the analysis requested.
5. It also has to be more clear in the data call which data that will be public available.

Procedures for enforcement of decision for the VMS data call

As this recommendations were presented during the RCG and legal aspects should be investigated on a national level , it was decided that the final endorsement of the recommendation should be at latest 2 October 2018, for a final decision to be taken at the Liaison meeting.

5. Regional plan

5.1. Regional work plan vs regional sampling plan.

A first step towards the establishment of a regional work plan is the harmonization of protocols and procedures – Sea-sampling programmes.

Objective:

Identify harmonized minimum requirements for sea-sampling protocols and procedures as well as observer training.

Rationale
Data obtained through sea-sampling programmes essential for fish stock assessment might also be of importance for evaluation of fisheries impact on ecosystems (eg. by-catch monitoring of mammals and birds). Programmes are usually expensive to run and procedures onboard sometimes are dependent on logistical constrains. Data from sea-sampling is usually combined cross MS for assessments. However knowledge on individual MS sampling protocols and procedures is presently limited at the regional level implying that compatibility of data to some extent is unknown. Best practices have been developed by ICES WKPICS2 but it is unknown if MS have compared their sampling protocols against this best practice and made changes were relevant.
Given the substantial costs associated to sea-sampling would it further be relevant to learn from the good examples.
It is also a possibility to assess how much variance that comes from the procedures and protocols in the different MS and thereby how they impact the quality of the generated data.

What we want to do?

- Translate all sampling protocols into English
- Compare sampling protocols against best practice developed by ICES WKPICS. Draw conclusions on national and regional scale. Report conclusions to RCGs and ICES WGCATCH,
- Exchange observers between MS
- Test sampling programmes in paired tests (2 observers with different protocols sampling the same fishing events), analyse potential sources of systematic bias, variance, how "true" is the data from observer programmes
- Compile what is required for an annual training of observers or a full training program.

5.2. Regional sampling plans: a test case (building block)

Objective:
Synchronization of the commercial fisheries sampling (Sea- and port sampling) in ICES subareas 1 and 2.

Rationale
The EU has only a minor share of the total allowable catch (TAC) of commercially important species like Northeast arctic (NEA) cod, NEA saithe and NEA haddock in ICES subareas 1 and 2 in comparison with Norway and Russia. Notwithstanding this fact, the sampling of the commercial fisheries of the EU countries fishing in this area should be synchronized. So far, there is neither a spatial nor a temporal agreement or synchronization of the sampling procedures, areas and seasons. This may result in biased or small-scale data on, e.g. length distributions and weight-at-age, which, as a result, are difficult to use in the stock assessments. This could easily be prevented by agreements on and a synchronization of the sampling area and the intensity and timing of the sampling between interested countries.
As a further step towards an increased data quality, the age readings of NEA cod, NEA saithe and NEA haddock should be harmonized. As a first step, a harmonization of the age readings should be achieved between EU member countries, followed by a harmonization with Norway and Russia.
Given the costs associated with the sampling and the minor impact of the resulting data products, a logical consequence is the optimization and synchronization of the sampling between EU member countries.

Way to move forward

- Initiate a synchronized sampling plan between the member states for the commercial fisheries sampling subareas 1 and 2 (intersessional in the appropriate subgroup).
- The timing should be the 2nd/3rd quarter of a year referring to the sampling in the following year.
- Based on maps, produced from the RDB, a sampling plan for the following year needs to be formulated.

- Contact persons are the national correspondents (to start with) until the relevant persons are identified and compiled in an official list. The list should be stored (to start with) on the RCG NS & EA SharePoint.
- All resulting data should be stored in the RCG NS & EA SharePoint until a repository for the RCG is created. The combined data set and the resulting parameters can be uploaded as a combined EU data set.
- Notwithstanding this combined data set, the member countries will still upload the national sampling data individually to ICES InterCatch or accessions.
- An age reading work shop or an "otolith exchange" (images of thin sections) has to be conducted to ensure a harmonized age reading protocol.
- Also, more nations participating in the commercial fishery in ICES SA 1 and 2 should be motivated to sample their fisheries in those areas.

5.3. Project FishPi2 – status & preliminary outcome

The status of three WPs of the project FishPi was presented and discussed during the RCGNSEA 2018.

The WP1 of fishPi2 is led by Katja Ringdahl and aims at to understand and to agree on the general architecture of a regional work plan. This needs to be supported by shared and agreed documentation. The preliminary outcome shows that often it is assumed that a regional sampling plan is the same as a regional work plan, while it became clear that the latter has a much broader scope. Main obstacles identified during a workshop/meeting of WP1 were further limitations in time, resources and commitment for intersessional work. A problem that emerged is that intersessional work for the RCGs commonly is an "invisible" task at the national institutes which means that it might be difficult to prioritize when resources are limited. A proposal how to overcome these issues and how to improve the engagement from member states in the development of a regional work plan are described in Annex 5 and annex 11,

The WP2 of fishPi2 is led by Liz Clarke & Dr Alastair Pout from MSS, Scotland. The WP is being carried out in tandem with WP3 and is considering the characteristics of regional fisheries, and the criteria that should be met prior to setting up regional sampling plans. More details are given in Annex 5.

The WP3 of fishPi2 is also led by Liz Clarke & Dr Alastair Pout from MSS, Scotland. The WP is being carried out in tandem with WP2 and aims to draft a regional sampling plan that achieves a better design for data collection while maintaining the autonomy of data collection of MS institutes. The work package includes two main deliverables: 3.1) An example regional sampling plan for the chosen fishery(s) for 2019 and 3.2) a repository of tools used in designing the regional sampling plan described in 3.1). Among the tools that planned for the repository are a) Data sharing agreement, b) Guidelines on Principles of Implementation of Sampling Designs, c) fishPiCodes package, d) Simulation study including logbook and biological elements, e) Proposal of rules for the allocation of effort across regional strata, f) Brief text outlining possible cost implications of introducing the regional sampling plan, g) An outline text of the necessary steps and stages to be considered in moving from a national to regional sampling scheme(s), h) Text outlining possible regional data storage systems and estimation approaches, i) Text outlining either an agreed regional protocol or issues to be addressed to agree regional protocols for the collection of data on catches and biological variables, j) Brief text outlining rules and recommendations to be used as reference in the establishment of future regional sampling plans. Annex 5 describes in more detail the project FishPi².

6. Data quality

6.1. RDB & RDBES - further steps towards DB development

The need for the development of the RDBES

The data fundament for the RCG North Sea and Eastern Arctic is the exiting RDB, which is hosted and maintained by ICES Secretariat. The present RDB have not been developed since it was given to ICES Secretariat in 2012 to support the RCG North Sea and Eastern Arctic, the RCG North Atlantic and the RCG Baltic Sea, but many maintenance improvements have been made to be able to use the strength of the RDB. The RDB is not only a database, is it also an estimation system, which can estimate discard and biological information. But because the existing RDB cannot store any statistical sound sampling information, the countries have not wanted use the estimation part of the RDB. Therefore there has been is a strong demand for developing a new Regional Database and Estimation System, in which the statistical sound sampling information can be quality checked and stored and statistical sound estimations can be executed and documented. This is in line with the text in DCF 2016/1701, article 5 Quality assurance and quality control. Under point 3. "Where data are to be collected by sampling, Member States shall use statistically sound designs that follow guidelines for good practice provided by the Commission, the International Council for the Exploration of the Sea (ICES), STECF or other expert bodies to the European Commission". Therefore it is important to be able to quality check, store and use the statistical information collected during sampling. The RDBES data model will meet previously identified needs in terms of database structure and sampling design content that have been preventing full usage and correct interpretation of the data on the existing RDB. The development of the Regional Database and Estimation System, RDBES, started in the spring 2017 and the Steering Committee of the RDB, SCRDB, established a Support Core Group, which should specify the needs, so ICES Secretariat could development the new RDBES according to the needs. The Core Group have since worked on specifying the data model for the sampling of the commercial fish species, which should be able to support all countries sampling of all species. The new data model and hereby the database part of the RDBES will be by far more generic and complex that the existing RDB's database. As an example the existing RDB handle one way of sampling species where the new RDBES will be able to handle so far 32 different ways of sampling and more can be added. The intention is that the RDBES should be finished for the commercial species around summer 2019, but because of the complexity of all the countries different sampling methods and the sampling of many different species, the data model specifications and the development is delayed.

Main reasons for using the RDBES

Having a single system hosting the different regional databases appears as the best solution in term of harmonisation of procedures and from a cost-benefits point of view. The RDBES is also a tool that would allow improving the standardisation of quality among countries, and it would also allow responding to different datacalls without extra work when first developed.
There are many advantages of using the RDBES when it is implemented:

- Support the Regional Coordination Groups with harmonised sampling data for coordination
- Higher data quality by using common quality checks across all countries' data
- Ensure only approved standardised statistical and ratio 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 used for the ICES stock assessment
- The data handling is as efficient and easy as possible

Funding is needed

ICES Secretariat is funding the development of the RDBES, but the funding is ending after summer in 2019, therefore it is important to find funding for further development.

The development and specification of the data model

The specification of the RDBES data model benefitted from a special request from the EU Commission, which enabled two workshops to take place in addition to what had already been planned/budgeted under the ICES investment.

There has been a lot of progress on the Regional DataBase and Estimation System, RDBES. It is very complex to specify the data model for the RDBES, because it includes statistical sampling information and it should cover all countries sampling of all species. The data model should originally have been specified in March 2017, but the very dynamic data model have been developed continuously during 2017 and 2018 by the Core Group (a subgroup under the Steering Committee of the RDBES) lead by ICES Secretariat, through a set of web meetings and physical meetings. It is first in September 2018 where the data model is close to being finalised for implementation in the RBDES. The data model have in February 2018 been send to the WGCATCH and the countries for feedback, after some changes it was send in March to countries through the National Correspondents and ICES Advisory Committee. The latest updated data model was send late June to the RCGs and countries for feedback, to ensure all countries are included in the specifications of the needs, and for the counties to have a possibility to change the data model to ensure their data can be included in the RDBES. This process takes time and it has never been done before. To make sure the countries gave feedback on the data model, the requested time to spend was limited to answer the following four questions:

1. Do the countries think their sampling programs/data will fit into a hierarchy in the data model? If not what needs to be added?
2. Does each country think it can populate the data model with data?
3. Do the RCG member states think any ongoing issues from the existing RDB upload logs will be resolved by this model?
4. The countries are strongly encouraged to try to populate the data model with national sample data. Please describe the outcome of populating the model.

Only the short answers are listed in the table below for each country just to have an overview, each column represent an answer to one of the four questions:

	1. Short answer. Do the countries think their sampling programs/data will fit into a hierarchy in the data model? If not what needs to be added?	**2. Short answer. Does each country think it can populate the data model with data?**	**3. Short answer. Do the RCG member states think any ongoing issues from the existing RDB upload logs will be resolved by this model?**	**4. Short answer. The countries are strongly encouraged to try to populate the data model with national sample data. Please describe the outcome of populating the model.**
Belgium	**Yes.**	**[Yes since it is possible to use the Fishing Operation with Aggregation Level set to Trip]**	**We had no RDB upload log issues.**	**We were able to populate the model with example data (1 trip).**
Denmark	**Yes.**	**Yes**	**We don't have any issues relating to the data model in the upload log**	**Able to populate fully with at-sea data - just need the last table with individual fish**
Estonia	**Yes**	**Yes**	**We had no RDB upload log issues at present**	**We populated the model with sample and biological data**
France	**France should have replied in early Oct. No reply have been received 10th Oct.**			

	1. Short answer. Do the countries think their sampling programs/data will fit into a hierarchy in the data model? If not what needs to be added?	2. Short answer. Does each country think it can populate the data model with data?	3. Short answer. Do the RCG member states think any ongoing issues from the existing RDB upload logs will be resolved by this model?	4. Short answer. The countries are strongly encouraged to try to populate the data model with national sample data. Please describe the outcome of populating the model.
Germany	Yes.	Yes, because we can define sampling scheme, upper and hierarchy, as well as "helping" auxiliary tables.	Partially yes, since auxiliary tables can serve as "user-defined" parameters and don't need to be "system-defined".	At sea data have been test with no problems.
Ireland	Yes.	Yes.	Yes.	We successfully tested the model by writing scripts to extract our 4S demersal at-sea data into Hierarchy 3.
Latvia	Yes. Hierarchy 1 fits our sampling program.	Yes. It's possible.	We hope so, but in the past we didn't have any big issues.	This process is started.
Lithuania	Yes	Yes	We had no RDB upload log issues.	15th Sep. We will have populate the data model with selected national sample data.
Netherlands	Yes.	mostly yes.	We had no RDB upload log issues.	We were not able to try to populate the data model with national sample data before the deadline for this feedback.
Poland	Yes after own modification.	At-sea - Yes, but with some assumptions. On-shore - No, unless hierarchy 1 is applicable.	We had no RDB upload log issues.	We were able to populate the model with example data (1 trip at-sea sampling).
Portugal	Already used for horse mackerel (possibility of extending to more species)	Yes, but probably excluding data from the sampling design in answer 1.	This question was not evaluated by the MS yet.	This was not possible to do before the RCG
Spain	We think we are able to find a hierarchy for each of our ICES fisheries	We have been able to populate most of the tables and variables		We have been able to populate most of the tables and variables
Sweden	Yes.	Yes.	We had no issues in our RDB upload log.	At-sea (hierarchy 2) was tested with one year of data from one of our fisheries with no apparent problems.

	1. Short answer. Do the countries think their sampling programs/data will fit into a hierarchy in the data model? If not what needs to be added?	2. Short answer. Does each country think it can populate the data model with data?	3. Short answer. Do the RCG member states think any ongoing issues from the existing RDB upload logs will be resolved by this model?	4. Short answer. The countries are strongly encouraged to try to populate the data model with national sample data. Please describe the outcome of populating the model.
United Kingdom	**Possibly not.**	**Probably - but see detailed answer.**	**We have no ongoing upload issues.**	**Not attempted - see detailed answer to Q2.**

Looking at the answers and the feedback in general all the countries are of the opinion, that the latest version of RDBES data model will be able encompass their needs for sample data except United Kingdom. Scotland is not referred to in the table, thus it is not clear if this applies to Scotland as well. France have unfortunately not given any feedback so far. United Kingdom Scotland are missing some hierarchies, those hierarchies will be requested and included. It is one of the strong advantages to have a generic RDBES, in which new hierarchies fairly easy can be added during the development phase.
The User Requirement Specification, URS, of the RDBES is not written yet. It was the plan that URS should have been written during the WKRDB-URS the 2-5 Oct. 2018. The Core Group meet at the WKRDB-URS, but the detailed feedback from the countries and the very small Core group of five persons, where only one participated all 4 days, makes very difficult to write the User Requirement Specification document. Beside the country feedback, the code lists and the frame for the user roles was written, meaning the RDBES development team at ICES Sec. can continue their development from the few specifications. But this means the Core Group still have to write the User Requirement Specifications.

Development of the RDBES system

Even though there is not a completely finalised data model for the RBDES, the development of the RDBES have been ongoing, indicating that during this year it has been updated with the continues changes there have been. It is not optimal, but ICES Sec. need to make progress on the development of the RDBES even though there is not a final data model and User Requirement Specifications. During 2018 ICES Sec. has substantially developed the system, e.g., all import all tables with fields and relations were created in a test RDBES using the model in the entity framework; using Angular, the most modern client side framework, and REST, server side services were programmed in MVC. NET Core and Angular authentication was implemented. At the moment simple sample data test files for all the hierarchies can go through a simple data quality control and be imported into the test RDBES.

Presentations at the RCG NS & EA

During RCG NSEA 2018 two presentations were made on the Regional DataBase and Estimation System (RDBES). One presentation on the overall structure and status and a presentation on the population of the data model.

The RDBES system structure

The following is written focusing on the three RCGs which are using the existing RDB.

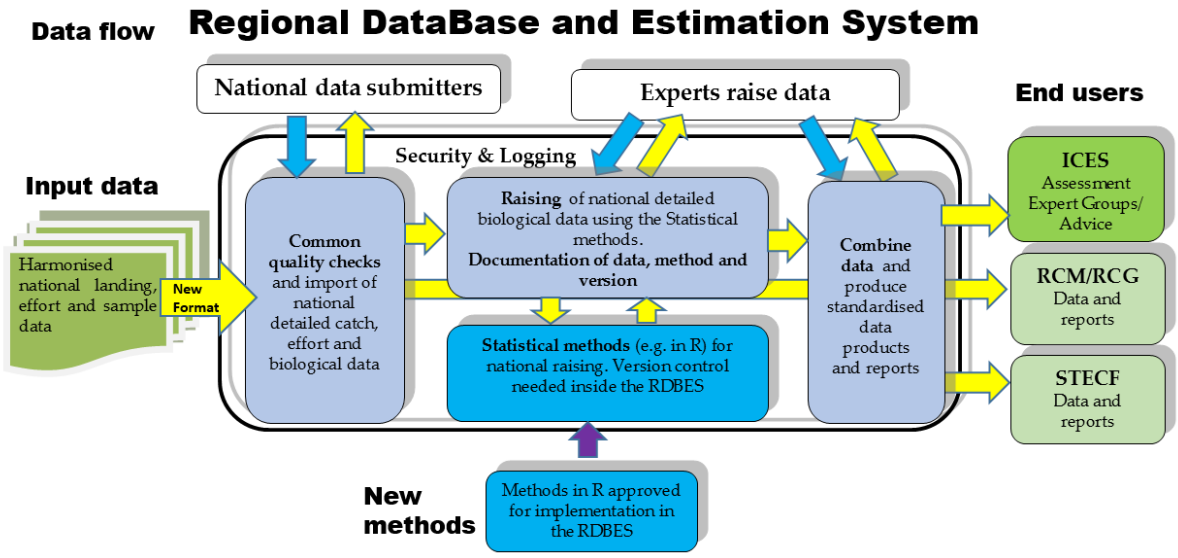
WGCATCH, PGDATA, WKMERGE, WKPICS, SGPIDS, WKRDB and the fishPi 1 and 2 project ha ve no access yet to the RDB, but recommend to collect and estimate data using statistical methods. The RDBES will therefore accommodate design based statistical data and statistical estimation methods. The raising/estimation of data should be based on approved statistical methods. Approved statistical methods are available in R, these methods should so far be encapsulated into the RDBES using version control. 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 RDBES, 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 and 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 have been approved, the method will be encapsulated into the RDBES, using the RDBES's version control of methods. The method can then be used to estimate/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.

To be able to document both the uploaded and the estimated data, the RDBES should log all processes regarding the data. According to the Data Policy of the RDB/RDBES the data are restricted, that will be 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/exported for data calls for other relevant end users e.g. STECF or ICCAT.



The RDBES system structure

RCG Large Pelagic, recreational fisheries, diadromous and by-catch species

One of the main focus for the RDB was to support the RCGs. However, the new development of the RDBES is to expand the use for other end-users and in time to support the stock assessment as well as other working groups. I In parallel work has been ongoing with the RCG LD. Five important and representative stocks have been selected for testing the RDBES data model, and a web meeting have been set up and the results should be presented at the Steering Committee of the RDBES, SCRDBES, the 4th December 2018 at ICES Sec.
At the RCG NA this year there was a subgroup looking into the recreational fisheries (with an overlap from WGRFS), they are also interested in using the RDBES for their data.
The Sub Group on Diadromous, SGD, which is an established pan RCG (BS, NS&EA and NA) sub group, with an overlap from WKEEL, WGTRUTTA and WGBAST, which this year meet at the RCG NS&EA are also interested in using the RDBES for salmon, sea trout and eel.
The Expert Groups on by catch WGBYC and WGPETSAMP are also interested in using the RDBES for their database.
There seem to be an understanding of the benefits of using the common RDBES platform for harmonising data across countries with quality checks across all countries' data for higher quality and standardisation with transparency and documentation as main drivers.

6.2. Upload logs & data anomalies

Preliminary) data submission status by country to the RDB 2018

During 2018, ICES have maintained the RDB and supported the countries in uploading their data, and prepared data for the RCGs
Lack of data or its non-timely upload to the RDB impacts RCG work. E.g., it leads to incomplete analyses (e.g., landing obligation subgroup) and regional overviews.
For the most the status of the data submission in 2018 by country was satisfactory (Annex 6) with the exception of Portugal and France. Portugal has not uploaded effort or landings data but has a minor contribution to the fisheries in NS and EA area. France has only uploaded effort data for 1 métier. The latter sharply contrasts with the last two years when France uploaded effort data for 99 and 45 metiers, respectively. All countries have uploaded age and length sample data, except for France and Portugal. Portugal and France have so far not uploaded any NS and EA age data to the RDB. Based on the number of species uploaded over the years, the conclusion is that all countries except these two have uploaded their data. Some countries, i.e. Denmark, England and Scotland have increased the number of species in the landings data CL over the past years.

Upload logs

13 member states (MS) out of the 15 who submitted data to the RDB, submitted upload logs to the RCG chairs and ICES secretariat covering the NSEA and NA regions. Only France and Sweden did not provide upload logs. Some upload logs were incomplete as some MS did not cover both data types (CE/CL - catch data and CS – Sample data).

Of the 13 member states, 8 were unable to upload all their data. Among the latter, only 3 had issues with the landing and or effort data and the issues were simply missing métiers and areas in the reference lists. These issues could be resolved for the next data call in consultation with the RCG Chairs and the RDB administrators. 5 MS were unable to upload all their sample data for more diverse reasons. These ranged from data not being ready yet (e.g. QC procedures pending) to size parameters (e.g. individual weight data and skate wing weights) and size groups not being appropriate within the limits of this version of the RDB.
For those data fully uploaded MS were also able to provide further useful information and this included references to derived weights and lengths where actual weights and total length data were not available at the time of sampling.
The submissions are extensive but could be better. E.g., when one knows gaps are there, one also needs a reference to how complete all the data is. Member States need to be more vigilant and submit this information as part of the data call. RCG Chairs also need to be more vigilant and chase MS for missing Upload logs when they receive the Accession receipts from ICES.
The results of these simple logs need to be considered before making assumptions about the data available on the RDB and considering how these data are used. Unless these logs are completed and available and issues accounted for any conclusions that come from the data on the current RDB are undermined.

Table 6.2.1 Upload log submissions by data type. 1= presence. 0 = absence

	Data type	
	CL, CE	*CS*
Belgium	1	1
Germany	0	1
Denmark	1	0
Estonia	1	1
England	1	1
Spain	1	1
Ireland	1	1
Latvia	1	1
Lithuania	1	1
The Netherlands	1	1

Poland	1	0
Portugal	0	1
Scotland	1	1
Northern Ireland	1	0

6.3. Documentation and Tools for Quality procedures, Workplan and Annual Report .

The RCGs have several needs to develop further a regional workplan and regional sampling.
The main needs are currently:

- the need to generate overviews of fisheries
- Knowledge on quality of data
- Develop tools based on the existing RDB format to compile tables / parts of tables for different reports (eg. National Workplans, Annual Reports) to ease the burden of the MS.
- Develop / continue to develop codes tools, based on other data sources than the RDB, to support harmonization in reporting to COM, across MS

Each of these needs, are part of the Subgroup on Data and are described further as a task whith the respective rationale and actions to take to realise these tasks.

Task 1. Facilitate the production of regional overviews of fisheries and sampling.

Rationale:
The RCGs have a need to generate overviews of fisheries (including aspects such as spatial and temporal distribution of fishing effort and landings of relevant stocks, landing sites, gear types and fleets/métiers) and sampling for a number of reasons including increase the overall knowledge of fisheries and sampling in the region (eg. communication between RCGs and stakeholders), for consultation with end-users (eg. stock coordinators, stock assessors) to optimize data collection and for regional coordination and cooperation (regional work plans).
The basis for this overviews are the data in the RDB. Codes have been developed in different RCGs to generate such overviews, but the overviews are so far not complete and the codes developed are stored in scattered places and not always accessible.

Action:

1. Decide on a platform for public code repository
2. Build a generic code repository (pool work already done).
3. Develop, making use of existing codes were possible, generic inventories on data available and reports with overviews of fisheries and sampling. Present report at RCG meeting.
4. Continue to develop this generic report in discussion with RCG.

Task 2. Facilitate quality assurance of data and sampling programmes

Rationale:
Knowledge on quality of data is essential for understanding the stock assessments and advice produced on the basis of the data. Knowledge of quality is also a prerequisite for any kind of process to optimize cost-efficiency in data collection and the ability to prioritize between different data needs. MS are responsible for the quality of their national data but it is important to consider, harmonize and evaluate quality on a regional scale as data predominantly are used at that level.

Action:

1. Compile table 5A in the national work plans for all the MS in the region and evaluate the overall documentation on quality of sampling programmes in the region using table 5A.
2. Develop indicators to monitor overall progress (based on table 5A) on quality assurance in the region over time.

3. Collate relevant tools developed for quality control and quality assurance in data collection developed by other groups and projects (eg fishPi2 WP6, ICES WGCATCH, BIOPTIM) and make plans (including accessibility, storage and training) for how these can be integrated in regional work and how MS can be supported to integrate them in national work.
4. Compile uploads logs retrieved through the RCG data call and prepare feedback to MS on data anomalies.

Task 3. Develop tools based on the existing RDB format to compile tables / parts of tables for different reports (eg. National Workplans, Annual Reports) to ease the burden of the MS.

Rationale:
MS upload data to the RDB which thereby holds information required for different types of reporting to the Commission. It would ease the burden if MS could deduct the content of the tables "automatically". This would also mean that the compilation of tables is less error prone.

Action:
1. Identify tables in the National Workplans and Annual Reports that can be populated with information and meta data from the RDB.
2. Develop scripts for routine extraction and compilation of such information and meta data into the relevant tables.

Task 4. Develop / continue to develop codes tools, based on other data sources than the RDB, to support harmonization in reporting to COM, across MS
Rationale:
Information in table 1A constitutes the basis for requirements on MS to sample certain stocks and/or participate in different types of data collection. Presently all MS fill in table 1A independently which might result in discrepancies. The information needed for table 1A is available through Eurostat and other sources. It would be more transparent and time-efficient if table 1A was filled in once for all MS.
The DCF métier Workshop held in January 2018 concluded that a common repository for maintaining and storing reference lists, documentation of procedures, scripts and métier descriptions is needed in order to improve the interoperability and comparability across nations.

Action:
1. Finalize the code for table 1A (National Workplan), test the code and make it available.
2. To facilitate harmonization of métier assignment, set up and manage a public repository for storing reference lists, documentation of procedures, scripts related to assigning métiers to transversal data as well as métier descriptions.
3. Give feed-back to MS based on their upload logs if the problem is related to missing metiers.

6.4. Update metier, stock names, harbour codes

The Métier workshop was initiated by the RCG's who identified a need for a workshop dedicated to issues related to assigning DCF métiers to transversal data. Nations are currently using a variety of methods, using different auxiliary data and expert knowledge.
Common issues encountered when assigning métiers to transversal data were identified and described, and best practices recommended. It was agreed that a trip can have several métiers, and that métiers should be assigned to fishing operation or fishing sequence. The target species assemblage group is defined as the fishing intention. However, many nations do not have that information directly available and need to estimate it from the landing composition, preferably based on the value of the landings. In the case of the small-scale fleet without logbooks alternative methods need to be adopted for assigning métiers to trips from this fleet. This could be based on a variety of data sources like questionnaires, adapted declarative forms, sales notes, fishing calendars, licences etc. The group worked on reference tables for grouping species into target assemblage groups and worked with the RCG list of approved métiers. A template for métier descriptions was suggested.

It was agreed that it would be useful to have a publicly available repository for common reference lists, scripts, documentation and métier descriptions, and it was suggested that a GitHub under the ICES RCG's would be preferable due to the flexibility that it offers. There is a need for harmonisation and standardisation of the procedures and rules used to define the métiers (common approaches and reference tables following DCF standards) in order to improve the interoperability and compatibility across nations.
Recommendations from the Metier Workshop were as follows:

- The logic applied by MS to assign métiers should be documented
- It is possible to have more than one metier during a trip
- Generation of metiers need to include national expert knowledge and auxiliary information
- Target species assemblage:
    - Defined as the fishing intention
    - It is recommended that it is logged in the declarative form before leaving the port.
    - If the target species assemblage need to be based on landings composition, it is recommended to use value as metric rather than weight.
- The métier reference list should be cleaned up (overlapping métiers, harmonization).
- For the small-scale fleet with no logbooks, the MIS_MIS classification should be avoided. The métier classification can be based on auxiliary data, expert knowledge, altorithm, sampling etc. This is also the case of the polyvalent small-scale fleet.
- A public repository should be set up for storing reference tables, documentation, scripts and metier descriptions. Procedures should be made to administer this repository.

Report from the Métier workshop is at the JRC Datacollection website:
https://datacollection.jrc.ec.europa.eu/docs/rcm/2018.
The RCG was asked to deliberate the outputs of the Metier Workshop at follows:

- To decide on a repository for housing of reference lists, documentation and métier descriptions;
- To consider procedures for managing métier lists for the RDB (new métiers, overlapping métiers). Long-distance fishery and Mediterranean is currently missing (used for FDI).
- To consider whether métier descriptions should be captured;
- To consider standardisation of métiers across areas.

Recommendations

The RCG agreed that the level 6 metier should be constructed to enable comparison between countries and across regions rather than to describe national variability. Further detail needed by MSs for national purposes can be described at level 7.
It was agreed that there was a need to develop / continue to develop codes tools, based on other data sources than the RDB, to support harmonization in reporting to COM, across MS. This could be through a data sub-group and/or through a further workshop. It was agreed that the RCGs should develop the ToRs for follow up work which might include the following:

a. To facilitate harmonization of métier assignment, set up and manage a public repository for storing reference lists, documentation of procedures, scripts related to assigning métiers to transversal data as well as métier descriptions.
b. Collect documentation of logic applied by MS to assign métiers
c. Provide feed-back to the MS based on missing metiers in the upload logs
d. Make metier descriptions based on template.
e. Species list: finalise grouping into species groups (based on earlier work conducted by STECF)? Clean up metier lists: removing overlapping metiers standardize the codes.
f. Make a script for a standard procedure for assigning metiers based on a common data format, taking into account the recommendations made at the Metier workshop.
g. Test effort calculation method agreed in the WKTRANSVERSAL in Nicosia for the RDB LE table.
h. Test impact of change of measure to determine target assemblage (to value of landings).

7 Surveys

Outcome of STECF EWG meeting on surveys

At the first day of the meeting, the European Commission presented the outcome of the STECF EWG 18-04 "Preparation for the evaluation of the list of mandatory research surveys at sea" (Varese, Italy, 14-18 May 2018) to the RCG NS&EA. The EWG discussed and planned for a future EWG that will review research surveys of marine fish resources and propose surveys to be included on the list of mandatory surveys, as a revision to Table 10 of the EU MAP.

Past STECF survey reviews have taken an approach of scoring each individual survey proposed for inclusion on the mandatory list against a set of criteria laid out in the DCF or based on those criteria. After considerable discussion and considering the changed context of surveys under the 'DCF-recast' and the change from 'eligible' to 'mandatory' surveys, the EWG proposed a fundamentally different approach to reviewing the surveys. The new approach is driven from the viewpoint of the end-user needs, which is in principle the 'fish stocks' at the current stage, rather than from the viewpoint of the surveys. The new approach, called 'Decision Support Tool' (DST), considers each individual fish stock and various characteristics of any associated surveys to generate a Yes/No decision regarding whether the associated surveys should be placed on the list of mandatory surveys.

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

- Fishery management advice is provided for the stock.
- Indices from the survey are used in the assessment or TAC calculation for the stock.
- The survey is internationally coordinated and is harmonized.
- Data from the survey are accessible and available for scientific use.
- The survey provides the basis for the assessment or management advice for the stock.
- The survey provides adequate coverage for the stock.
- There is no duplication of this survey with another survey for this stock.

Embedded in the DST are various loops allowing for end-user input (through associated expert groups) and the possibility of improving and adjusting a survey before taking a “drastic” decision to terminate the data collection.

Two databases are needed for application of the DST and for use by the proposed surveys review group. The proposed **Stocks** database would provide general information about each fish stock and the surveys at sea that provide information to support the assessment or provision of management advice for the stock. The proposed database, by design, would contain information for all fish stocks of interest to the Commission, as listed in Tables 1A and 1C of the EU MAP. Stocks for which there are no surveys at sea would be included in the database to assist the future review of surveys in identifying potential needs for additional surveys (e.g., stocks for which there are no or limited surveys). The proposed Stocks database would be the primary source of information to which the DST would be applied for evaluating whether surveys should be included in the future proposed list of mandatory surveys. The Stocks database would also be used to identify possible duplicate surveys and stocks that are not covered by surveys.

The proposed **Surveys** database would provide detailed information about the characteristics of EU surveys at sea used to collect data needed for stock assessment or the provision of management advice, either with respect to fisheries or to the ecosystem. The proposed database would contain information for all surveys at sea listed in Table 10 of the EU MAP and any additional surveys proposed by Member States and the RCGs. The proposed database would contain one entry (row of information) for each survey and associated information such as the type of gear/methodology used in the survey, the areas covered, the time period covered by the existing data series, coordination and standardization of survey, and some of the types of data collected. The Surveys database would provide information to the DST on whether a survey is internationally coordinated and harmonized and whether its data are accessible. Also, this database would be the primary source of

information for identifying surveys that provide ecosystem information to support the Marine Strategy Framework Directive (MSFD) as well as to identify needs for expanding the area and time coverage of existing or new proposed surveys.

One important discussion by the EWG focused on how to evaluate objectively the 'importance' of a survey to any given stock assessment. While the stock assessment experts who conducted the assessments are the most qualified individuals to gauge the importance of the information provided by any given survey, there is no clear approach for quantifying the importance of information to an assessment, nor is there an easy mechanism for collecting such information in the short-term. The EWG was of the opinion that in the short-term, the survey review can operate using the default assumption that a survey is important if it provides information that is used in a stock assessment or in the provision of advice. In the longer-term, it would be beneficial if benchmark stock assessments included formal evaluations that gauge the importance of an individual survey; these formal evaluations could be included in future applications of the DST.
The EWG proposed ToRs for the full survey review in spring 2019 and a (revised) roadmap for the completion of tasks until that review meeting.

Filling stocks and survey databases

As part of the EWG presentation summarised above, the Commission requested the RCG NS&EA to decide if the list of stocks in Tables 1A and 1C of the EU MAP, or any additional stocks, should be considered as starting point for filling the stocks/survey database(s). Being the basis for data collection under the DCF and directly specifying the stocks of interest for the Commission, RCG NS&EA decided to take Tables 1A and 1C as basis for the survey review. Currently, no stocks need to be added, but it is anticipated that some surveys produce valuable data for stocks not listed in Table 1A and 1C. This information can be derived from both databases upon completion. Should stocks or species surface through this exercise, these should be taken into account as if these where included in Table 1A or 1C.

A common challenge, however, is the mismatch between species-area combinations in the EU MAP tables and ICES assessment units. The RCG NS&EA started filling the databases, using the best approximation between both stock definitions. This work will be continued in the forthcoming RCGs for the other regions. During this exercise, filling the 'Stock Coverage' column has shown to be not straightforward due to lack of detailed knowledge on the correspondence between stock distribution and survey areas. The RCG proposes that addressing this criterion should to be transferred to the relevant survey planning groups. Likewise, the RCG did not have sufficient expertise for filling the columns on MSFD descriptors and proposes that Member States add this information for thir own surveys. On the editorial side, the RCG advises that the survey database is organised by separate lines for each MS, as e.g. the data collection for MSFD descriptors could be very different from MS to MS.

In general, RCG NS&EA appreciated the proposed model and considers this method as an appropriate way forward.

Cost-sharing of surveys

The RCG points out that the existing cost-sharing agreements for the "International Ecosystem Survey in the Nordic Seas" (ASH) and "Blue Whiting Survey" are continued into 2019 as stated in the current agreements. Also, pending the STECF survey review (and subsequent potential modification of Table 10 of EU-MAP) the discussion on cost sharing of other surveys is postponed until after this review.

8 Incidental by-catch of birds, mammals, reptiles & fish

The focus in the DCF observer sampling program is trawl fisheries whereas static gear and long lines often is under sampled in the DCF as shown by ICES (2013) and Mugerza et al (2017). The reason for this focus in the observer sampling program is the aim of the programs has been to sample mainly discard of fish species. An assessment carried out by WKBYC (2013) showed that bottom trawling is generally oversampled with respect to monitoring of protected species, while in some areas static nets, longlines and purse-seines are under

sampled. This has recently been confirmed in a more refined assessment for most eco regions in the North East Atlantic in FishPi1 (WP3).
The implementation of sampling of protected species in the new DCF can contribute to the assessment of bycatch if properly documented but is not currently sufficient to make a full assessment of the impact of fisheries on protected species. For example, in cases where sampling under the DCF is carried out by means of sampling in harbours (market sampling), obviously the bycatch of protected species is not covered because it is not routinely returned to shore. Also the coverage of the most important commercial fleets is not necessarily covering the fleets and metiers where there is a high risk of incidental bycatch.
A tool which can be used to determine which fisheries require monitoring in order to most effectively minimise the current uncertainty around the overall bycatch estimate is being developed by the UK (Northridge, 2016) and has been briefly described in the 2018 WKPETSAMP report and main conclusions are described below.

Development of a rational for monitoring PETS bycatch - from WKPETSAMP (ref Northridge, 2016)

There may also be a need to use methods other than at-sea sampling programmes due to the high associated costs if high monitoring coverage is needed to meet end-user defined precision requirements. It is recommended that WGBYC review alternative methods that might be used as an alternative to at-sea sampling by observers. One alternative source of information could be the last haul inspections conducted by the control agency EFCA.

Development of a rational for monitoring protected species bycatch
Work has recently been carried out in the UK (Northridge, 2016) to develop a formal rationale for allocating sampling effort between métiers to reduce uncertainty in protected species bycatch estimation. Here we briefly describe the conceptual approach.
When bycatch of protected species is being considered, the risk assessment framework can be visualised as three elements as shown in Figure 8.1 below.

- Resilience is usually taken to be a function of animal population abundance and the ability of the population to grow or recover.
- Susceptibility is most usefully expressed in terms of a metier specific bycatch rate, but can be provided by expert solicitation and categorised in simple terms (e.g. Low-High).
- Scale is generally considered to be known accurately through official fishing effort statistics and is usually expressed without uncertainty, though significant uncertainty can exist.

A species with low resilience and high susceptibility to bycatch in a large fishery is at risk of significant conservation impact, and conversely a species with high resilience and low levels of interaction in a small fishery is less at risk.

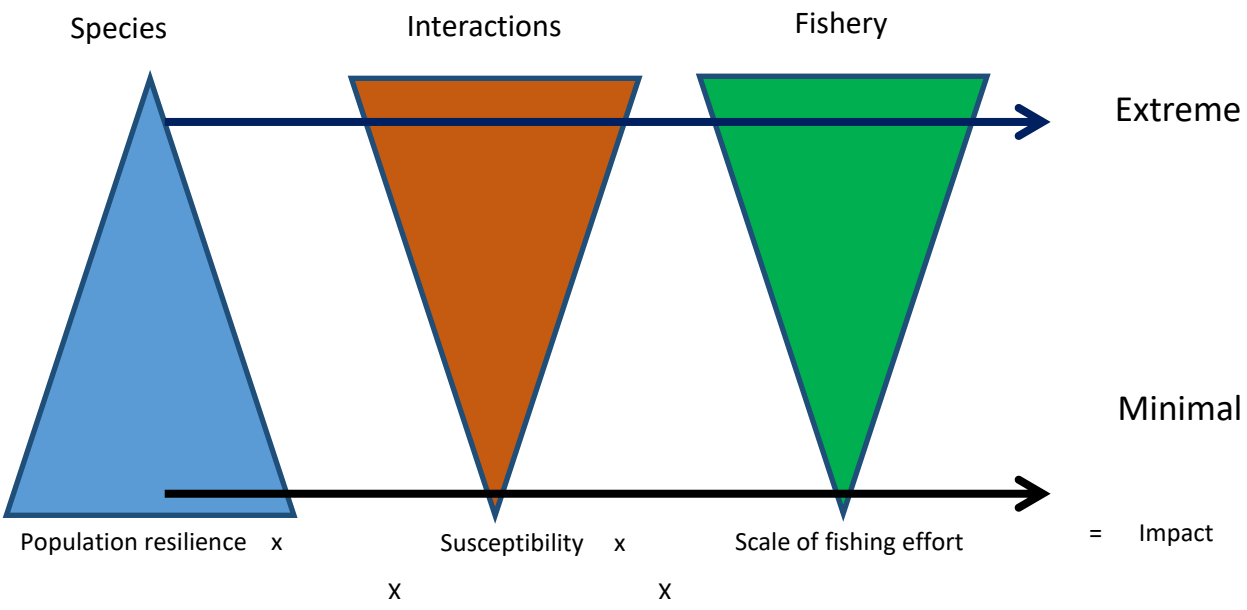


Figure 8.1. Three elements of the risk assessment framework.

An example is given in table 8.1 to illustrate how sampling effort can be allocated between métiers. It is assumed that Species X has a maximum bycatch reference limit (resilience) of 1000 individuals. This limit is divided among four fisheries, pro-rated by effort in each fishery.

Table 8.1. Example of how sampling effort can be allocated between métiers. It is assumed that Species X has a maximum bycatch reference limit (resilience) of 1000 individuals. This limit is divided among four fisheries, pro-rated by effort in each fishery.

Fishery métier	Days at Sea	Days observed	No of animals observed	Upper Confidence Limit on bycatch estimate	Allocated bycatch reference limit	Difference between allocated limit and current estimate
A	3800	50	1	103	95	-8
B	31000	3000	15	248	775	527
C	200	30	0	23	5	-18
D	5000	10	0	1540	125	-1415
Summed	*40000*	*3090*	*16*	*1914*	*1000*	*-914*

In this example current sampling levels suggest the total bycatch of Species X (UCL) may exceed the reference limit overall by 914 animals, but most of this uncertainty comes from Fishery D, where only ten observation days have been carried out with no observed bycatch. The bycatch estimate for Fishery D lies between 0 and 1540 animals per year (high uncertainty), assuming bycatch events are binomially distributed. If an additional 20 days observations were made in fishery D (assuming no bycatches were observed) the upper confidence limit on the bycatch estimate falls to below 580 and to less than 1000 overall, below the allocated reference limit. An additional 20 days in fishery B would barely alter the UCL for that fishery and so would change the overall picture. Clearly allocating monitoring effort to fishery D is a more efficient way of improving precision around the overall bycatch estimate.

This approach helps determine which fisheries require most monitoring in order to most effectively minimise uncertainty. A more complex analysis is required where 2 or more species are considered with different bycatch reference limits and varying susceptibilities among the fisheries.

The importance of setting reference limits as yardsticks against which to compare current best estimates of the likely maximum bycatch should be clear. Such reference levels could be aligned with conservation targets (such as the 1.7% limit on small cetacean bycatch adopted by the Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS)), but it is equally possible to use reference limits unrelated to estimates of sustainability. The way in which the reference limit is allocated

between métiers is also important and can be based on fishing effort or other metrics such as landed catch weight or value of landings depending on what is most appropriate.
In times of restricted budgets it is important that attempts to implement ecosystem based fisheries management are directed in a rational way to meet different objectives. Already, within the UK, data from sampling schemes that were established to monitor commercial species discards are being used to address bycatch of protected species, while the sampling programme established to monitor cetacean bycatch has evolved and now covers all protected species. Within such data collection programmes, resources should be allocated in a way that best addresses management needs and reduces uncertainties. The approach briefly outlined here aims to provide a rationale for parsimonious sampling that will address the key uncertainty in bycatch risk assessment, that of susceptibility by métier.

9 Impact of management measures on data collection

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 logbooks 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".
It was therefore decided to continue this work but at a pan regional level working intersessional.

A questionnaire from the RCM NA in order to capture the practical issues and perceived concerns relating to current and pending discard plans was amended to cover the species/fisheries/fleets under the obligation in the North Atlantic, Baltic and North Sea. The returned questionnaires were analysed and a full report and the returned questionnaires are presented in Appendix 13.

General summary on the findings:
Overall, the findings were quite consistent across the three regions, BMS landings were rare and generally no access issues for onshore sampling and a few issues for offshore sampling were reported. Most MS are logging responses for offshore sampling. Only a few MS are logging responses for onshore sampling as there is no perceived issue in this area. The majority of the MS have no perceived effect on the quality of the data. However, there are limited BMS landings recorded and the complexity of the LO is probably leading to errors in the logbooks. It is also possible that MS have not yet modified the scripts which extract data from their national database to the RDB to allow correct encoding of BMS landings - this might mean that BMS landings are being under-reported in the RDB.
Regarding fishing behaviour, very little change has been noticed however not a lot of countries have carried out any analysis. This is also the case for any analysis on the observer effect, nothing has been observed. Many countries have put additional measures in to place to implement the LO, namely amending logbooks, upgrading harbour facilities, changing quota allocation systems, analysing last haul data and having series of industry meetings.
A series of pilot studies concerning the implication of the LO have been carried out by a number of MS; analysing last haul data, selectivity and survivability studies, CCTV studies and as part of the ***Discardless*** project. There have also been quite a few studies on potential choke species, namely: plaice in the Baltic Sea, mitigation studies in the Celtic Sea, demersal trips in the North Sea, Cod in the Baltic Sea, selectivity and data enhancement on haddock in area VII, mixed fisheries WG, gadoids in the Celtic Sea, mackerel and hake in Iberian waters, pelagics in the Bay of Biscay. Furthermore, five countries are monitoring *de minimis*.
In general there has been no effect of the LO on recreational fisheries.

Further work plans:

It is considered that it would be beneficial for this work to continue in to the next few years as the Landing Obligation continues to be phased in with full implementation in January 2019. This intersessional group worked well because of the defined work plan and the prompt response of the MS with the questionnaires. The level of time dedicated to this intersessional task was not too onerous on the chairs and subgroup to complete the workplan.
It is proposed to commence the distribution of the questionnaires earlier in the year in order to avoid the holiday period but the RDB analysis will stay with the same timeline.

RCG NS&EA 2018 suggests the Pan-Regional Subgroup on the Landing obligation continues its activities during 2018/2019 and that the come with recommendations to the MS on how to improve the sampling program to capture the BMS fraction.

Initial ToRs- Implication of the Landing obligation:

Pan Regional subgroup on Implication of the Landing obligation

- Evaluate the implication of the landings obligation on national and regional catch sampling programmes
- review and analyse 2017 BMS CS and CL data on the RDB and source and review other available metrics (e.g. refusal rates)
- contribute to and review ToRs & outcomes of WGCATCH 2017
- Explore other data sources to evaluate implication of the landings obligation such as last haul data from control agencies.

ToR 1 and 4: Review of questionnaires

Overview of metiers on exemptions at a national level

The EU landing obligation is phased in across fisheries and species from 2015 to 2019. Under the landing obligation, all discards of TAC regulated commercial species have to be landed. In all areas except for the Baltic, the landing obligation is gear specific rather than stock specific resulting that the species included in the landing obligation has changed during its implementation. There are some exemptions (for fish with high survivability, and a specific *de minimis* discard allowance under certain conditions) to the landing obligation which are defined in the regional discard plans covering the North Western Waters, South Western Waters, North Sea, Baltic Sea, Mediterranean Sea and Black Sea. These catches are not counted against the quota, but must be documented in the logbook. Since October 2014 The EC has adopted several discard plans through so-called delegated acts in preparation of the implementation of the landing obligation (https://ec.europa.eu/fisheries/cfp/fishing_rules/discards_en). MS were asked in the questionnaire to provide an overview of metiers on exemptions at national level. As this question was interpreted differently by the various MS, a general overview of the submitted responses cannot be given at present. Therefore, an overview of all exemptions that are applicable for the North Sea, Western Waters and the Baltic Sea in 2018 (and if applicable onwards) based on the EC delegated acts is provided in the Appendix II of Annex 13I. In future it would be interesting to investigate which MS are applying which exemption.

Responses were received from all countries except France. Multiple responses were received from some countries who broke them down by area/region (SWE-Baltic, N Sea) (UK- ENG, WALES, NI and SCO) (ESP and Basque Country) or by Species (FIN- Salmon, Cod, herring Sprat) therefore when compiling the answers some were combined where applicable.

10 Diadromous species & recreational fisheries

The sub group was attended by 12 experts on Atlantic salmon and sea trout, plus one expert who joined the meeting on Wednesday September 5th via Skype. The experts represented ten countries, from both the Baltic and Atlantic areas.

Due to the scheduling of WGEEL in the same week as the RCG NSEA the RCG eel experts will meet at the RCG Mediterranean in Kavala, Greece, September 18th-20th 2018. A report of that meeting will be included in the RCG Mediterranean report. The full text from the subgroup can be found in Annex 14 as a stand-alone report.

The draft ToRs relevant to Atlantic salmon and sea trout were discussed and agreed by the sub group in plenary, before allocating 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.

As in 2017 a series of recommendations are posed to the ICES Working Groups in their role as end users. These are highlighted in the relevant text sections, but also tabulated at the end of the annex to ease their transmission to ICES.

ToR 1 Review progress since last year

ToR 1.3: Consider feedback from End-Users (ICES EGs) to the recommendations from RCM Baltic 2017 (elaborated as points 1-5 below), and follow up accordingly.

At the RCG Baltic meeting in 2017, the Diadromous Sub Group (RCG) directed recommendations to the ICES Expert Groups WGNAS (Working Group on North Atlantic Salmon) and WGBAST (Working Group on Baltic Salmon and Trout) and asked for a response regarding end-user needs for stock assessment. A response was delivered from WGBAST (Annex 14) though the feedback did not cover all information/data needs, it highlighted some important issues about the process of selecting Index Rivers and a brief evaluation of the need to coordinate parts of the data collection. Due to heavy workload with a full assessment in 2017, feedback was not delivered by WGNAS although the recommendations were discussed at the working group meeting.
To cover the total data/information needs for stock assessment, the RCG has elaborated the recommendations from 2017 into the following specific points that should be addressed by ICES EGs on diadromous fish before the RCG meeting in 2019:

1. For commercial fisheries in Union waters, advise on the selection of stocks for which variables (sex-ratio, maturity, fecundity) have to be collected in support of scientific advice, and the and sampling level, temporal frequency of data collection.

2. For commercial fisheries in freshwaters, specify stock-related variables to be collected for individual specimens, on age, length, weight, sex, maturity and fecundity, by life stage. Noting that the requirement to collect annual catch quantities by age class or life stage is obligatory.

3. For recreational fisheries in all waters, advise on the end-user needs for age or other biological data, noting the requirement to collect annual volume (numbers and weights or length) of catches and releases is obligatory.

4. Define the rivers and the selection criteria's to be monitored for salmon at regional level, noting that 'rivers' in the Legal Text is interpreted to represent 'water bodies' (STECF 2017).

5. Coordinate, at regional level, the selection of stocks from which salmon variables (parr, smolts, ascending adults) have to be collected, and advise on temporal frequency (annual or not) of the collection of variables for salmon.

Based on the elaborated recommendations above, the RCG has produced a first draft of a list of data needed to assess status and provide scientific advice for salmon stocks in the North Atlantic and the Baltic Sea (see

table 1, annex 14). The preliminary compilation needs input to give a complete picture of the data requirements and is therefore directed to WGNAS and WGBAST for their feedback to the RCG meeting in 2019. The two EGs are encouraged to consider in their responses also quality aspects and possible needs for coordination of the data collection between countries, including standardization of methodologies (e.g. age reading, electrofishing and methods to estimate smolt abundance).

The new EU data collection regulation covers to some extent data collection on sea trout in the Baltic Sea, and the feedback from WGBAST should therefore ideally include also data needs for this species. However, there is currently no analytical assessment carried out for sea trout in the Baltic Sea because of a lack of suitable methodologies. ICES working group WGTRUTTA was established in 2017 to develop assessment models and establish biological reference points for anadromous trout. Until this developmental work has been finalized, it is not possible to identify in detail which data will be needed in the future to assess status of sea trout populations in the Baltic Sea or elsewhere. The RCG therefore suggests postponing the compilation of data requirements for sea trout until WGTRUTTA has finalized its three year term and an assessment model has been agreed upon.

The group also discussed the issue of data collection on salmon stocks that have been extirpated and currently part of a reintroduction programme. The subgroup agreed that biological data on such stocks, although very useful in monitoring the success of the programme and thus the MS, is not of great use in any international or regional stock assessment. It therefore should not be necessary to collect data on such stocks for assessment purposes. At a time when stocks return to a self-sustaining state data collection for use in international stock assessment should resume.

Recommendations from the RCG NS&EA 2018

Recommendation and Question for ICES Expert Groups **WBAST** and **WGNAS** to address

Recommendations for WGBAST and WGNAS
The RCG recommends WGNAS and WGBAST to consider the list of possible data required for Atlantic salmon stock assessments in the 2018 RCG report and to report back to RCG in 2019 on this list with suggestions for changes and/or additions.
The RCG recommends WGNAS and WGBAST define the rivers to be monitored for Atlantic salmon at regional level, noting that 'rivers' in the Legal Text is interpreted to represent 'water bodies' (STECF 2017).
The RCG recommends WGNAS and WGBAST suggest a selection of stocks from which salmon variables (juveniles, smolts, ascending adults) have to be collected, and advise on temporal frequency (annual or not) of the collection of variables for salmon.
The RCG recommends WGBAST and WGNAS to comment on current quality assurance in their data, and recommend actions to improve QA in future.
The RCG recommends that WGBAST and WGNAS should be encouraged to consider adopting the RDBES database as their primary data resource.

Other recommendations

The RCG recommends that a representative of the RCG should be present at the Liaison Meeting between the RCGs and STECF

11 Next venue and chairs

The next venue will be in Gent in Belgium and hosted by ILVO. And will be chaired by Leonie O'Dowd (Ireland) and Els Torreele (Belgium). The timing for the meeting is suggested to be 3 – 7 of June 2019.

12 Any other business

1. RCG NSEA General proposal on setting up subgroups:

The RCGNSEA agreed in order to achieve a better and more efficient follow-up of the topics to be dealt with under the Data Collection Framework, sub-groups established by the RCMNSEA in 2017, need a formal status and a structure.

Participation: People from member states are assigned to the sub-group need to guarantee that they can spend at minimum hours corresponding to one working week on the sub-group tasks. In the case of pan-regional subgroups a minimum of n=2 persons should be appointed by each participating RCG for pan-regional subgroup.
Turn into action: TORs discussed during RCG and agreed ahead of LM meeting. After LM meeting, sub-group chairs to estimate time involved in different tasks and make a workplan. RCG chairs to send out a letter to the relevant NCs announcing ToRs and task plan. NCs to consult with national experts to garantee the time. If needed, Sub-group chairs to prioritize tasks consulting with RCG chairs. Implementation of subgroup work plan.
Outputs: The subgroups shall produce a **short report** with the outcomes from the different ToRs and action points. More in depth documentation on the different action points shall, were relevant, be presented in **standalone annexes** attached to the report. The report should have **authors** (all active participants in the sub-group). Annexes provided shall also have authors making it clear which participants that have contributed to that specific work. The report shall also contain **clear advice** on potential continuation of the work under the different tasks/action points including if decisions need to be taken by the main RCG meeting to support this.
The report should be **submitted to RCG members one month** before the first meeting of either RCG NS&EA, NA or Baltic. Sub Group chairs report annually to the RCG plenary (or plenaries if pan-regional).

2. **Data Call RDBES**: 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. To launch the data call by the 5th of March 2019, with deadline to deliver the 5th of May 2019.

13 Overview of decisions, actions, recommendations and follow-up

The recommendations, actions and decisions are given in 3 overviews:

- To the European Commission (EC);
- To ICES Secretariat and WGs;
- To all RCGs and LM.

The recommendations to the EC and ICES, are sent by e-mail to the respective contacts for follow-up. The recommendations for the other RCGs are forwarded to the other RCGs for coordination an agreement between then, this is done during the Liaison meeting as all RCGs and PGECON are meeting here.

Recommendations to the European Commission (EC)

ID (auto, just drag)	RCG	Date	RXX	Recommendation	To who?	Background	Where to find more details	Expected action
NSEA 2018_20180906_R05	NSEA 2018	20180906	R05	Endorsement of outcome from metier workshop	EC & ICES & MS	Many suggestions were made in the métier workshop and the outcome was presented for the RCG. Part of the conclusions were endorsed by the group however some of the output were thought to be tested before it could be agreed upon. There is a seperate annex with the decisions agreed upon during this RCG	See Report 2018, section 6.4	Other RCGs to discuss, final discussion and communication at LM 2018

NSEA 2018_20180908_R08	NSEA 2018	20180908	R08	Establishing of a RCG Secretariat	EC	The Regional Co-ordination Groups (RCGs) are important strategic bodies for co-ordinating the collection, analysis and evaluation of European fisheries data. There are five RCGs all of which currently rely upon the RCG Chairs to provide the Secretariat functions of their respective groups. As these groups mature and define their ToRs, develop multiple sub-groups with formal remits, delivery structures and work plans, it is becoming clear that there is a need to consider the provision of dedicated Secretariat support for the RCG Chairs to ensure the efficient use of RCG MS resource allocation. A consistent approach to administering RCG activities, facilitating communication, helping to drive intersessional work and supporting the work of sub-groups would significantly increase the performance of the RCGs.	See Report 2018, section 3.5	Other RCGs to discuss, final discussion and communication at LM 2021
NSEA 2018_20180909_R09	NSEA 2018	20180909	R09	Subgroup on EUMAP 2020 & beyond	EC	Establish a pan-regional subgroup 'RCG – EUMAP 2020 & beyond: objective is to be pro-active for the new EUMAP from 2020/2021 onwards. Suggestion is to have one person by MS – to be started by correspondence – physical meeting ex in January. Request to be formluted to the EC to establish and sent timeline fto NC & RCG how EC sees the progressing of the EUMAP & EMFF for the years 2018-2019-2020	See Report 2018, Section 3.4	Other RCGs to discuss, final discussion and communication at LM 2022

NSEA 2018_20180910_R10	NSEA 2018	20180910	R10	Data Call - VMS data & confidentiality	ICES, EC	The RCG noted that publication of data supplied to the 2018 OSPAR/HELCOM VMS data call had resulted in disclosure of confidential data. This highlighted the general issue of how DCF data are treated to maintain confidentiality. This had become more obvious with the increase in demand for more detailed data, notably by the VMS call but also in the Fisheries Dependent Information (FDI) call.	See Report 2018, Section 3.5	

NSEA 2018_20180912_R12	NSEA 2018	20180912	R12	The RCG NS&EA is proposing the following two project proposal to be considered funded though the EMFF direct management funds assigned for support for the DCF fisheries data collection: (1) Further development of the Regional Data Base and Estimation System. (2) Further development of SmartDots – a tool for age reading and maturity workshop and exchanges.	EC	With the adoption of the recast (EU regulation 2017/1004) of the DCF new possibilities for cooperation between the MS through the RCGs and with the Commission exists (Article 9, 6). Furthermore, with the new organization of DG MARE the RCG NS&EA are looking forward to a constructive cooperation where the RCG's and the Commission working together towards improving EU fisheries data collection and towards improving cost efficiency. Throughout the years' experience has been gained and MS and the Commission has learned that tools like data bases and software packages for analysis collected data are having a significant positive effect for the fisheries data collection. It has also been realized that some tools like a regional or pan-regional database, are a prerequisite for regional data collection. The RCG NS&EA is proposing the following two project proposal to be considered funded though the EMFF direct management funds assigned for support for the DCF fisheries data collection: - Further development of the Regional Data Base and Estimation System - Further development of SmartDots – a tool for age reading and maturity workshop and exchanges. A full description of the two proposals can be found in the 14th Liaison Report 2017 (https://datacollection.jrc.ec.europa.eu/docs/rcm/2017) .	See Report 2018, section 3.2.	

Recommendations to the ICES Secretariat and the WGs – for follow-up

ID (auto, just drag)	RCG	Date	R	Decision or Recommendation	To who?	Background	Where to find more details	Expected action
NSEA 2018_20180906_R01	NSEA 2018	20180906	R01	Draft process and guidelines for external requests	ICES	Many recommendations and requests arriving to RCGs are ill-defined. Process for RCG discussion also not clear to requesters. Background documentation for requests frequently missing or vague	example to be found in excel of recommendations	Other RCGs to discuss, final discussion and communication to end-users at LM 2018
NSEA 2018_20180906_R05	NSEA 2018	20180906	R05	Endorsement of outcome from metier workshop	EC & ICES & MS	Many suggestions were made in the métier workshop and the outcome was presented for the RCG. Part of the conclusions were endorsed by the group however some of the output were thought to be tested before it could be agreed upon. There is a seperate annex with the decisions agreed upon during this RCG	See Report 2018, section 6.4	Other RCGs to discuss, final discussion and communication at LM 2018
NSEA 2018_20180910_R10	NSEA 2018	20180910	R10	Data Call - VMS data & confidentiality	ICES, EC	The RCG noted that publication of data supplied to the 2018 OSPAR/HELCOM VMS data call had resulted in disclosure of confidential data. This highlighted the general issue of how DCF data are treated to maintain confidentiality. This had become more obvious with the increase in demand for more detailed data, notably by the VMS call but also in the Fisheries Dependent Information (FDI) call.	See Report 2018, Section 3.5	

NSEA 2018_20180911_R11	NSEA 2018	20180911	R11	Survey and stock table for Annex 10	WGBAST and WGNAS	The RCG NSEA have made a first round to populate the stock database table from the STECF meeting on surveys. The starting point has been the tabel 1A species. However, as many more stocks can be present within the same species and area this has been checked against the ICES advice. If now advice has been present the species is just listed.	See Report, section 7	Other RCG to populate further on the lists. When all 3 RCG has worked on the list they can be send to ICES and /or MS
NSEA 2018_20180913_R13	NSEA 2018	20180913	R13	The RCG recommends WGNAS and WGBAST to consider the list of required data for Atlantic salmon stock assessments. A draft list is to be found in the 2018 RCG report. WGNAS and WGBAST are requested to report back to RCG in 2019 with suggestions for changes and/or additions to the required data to conduct the Atlantic salmon stock assessment.	WGBAST and WGNAS	At the RCG Baltic meeting in 2017, the Diadromous Sub Group (RCG) directed recommendations to the ICES Expert Groups WGNAS (Working Group on North Atlantic Salmon) and WGBAST (Working Group on Baltic Salmon and Trout) and asked for a response regarding end-user needs for stock assessment. A response was delivered from WGBAST (Annex 1). Although the feedback did not cover all information/data needs, it highlighted some important issues about the process of selecting Index Rivers and a brief evaluation of the need to coordinate parts of the data collection. Due to heavy workload with a full assessment in 2017, feedback was not delivered by WGNAS although the recommendations were discussed at the working group meeting. To cover the total data/information needs for stock assessment, the RCG has elaborated the recommendations from 2017 into specific points that should be addressed by ICES EGs on diadromous fish before the RCG meeting in 2019, of which this the second point.	See Report 2018, section 10 & annex 14.	WGBAST & WGNAS to report back to the RCGs before the meeting 2019, through Diadromous Subgroup.

NSEA 2018_20180914_R14	NSEA 2018	20180914	R14	The RCG recommends WGNAS and WGBAST to define the requirements for a river to be monitored for Atlantic salmon at regional level. Based on this, a list of the rivers to be monitored for the Atlantic salmon shall be forwarded to the RCG.	WGBAST and WGNAS	At the RCG Baltic meeting in 2017, the Diadromous Sub Group (RCG) directed recommendations to the ICES Expert Groups WGNAS (Working Group on North Atlantic Salmon) and WGBAST (Working Group on Baltic Salmon and Trout) and asked for a response regarding end-user needs for stock assessment. A response was delivered from WGBAST (Annex 1). Although the feedback did not cover all information/data needs, it highlighted some important issues about the process of selecting Index Rivers and a brief evaluation of the need to coordinate parts of the data collection. Due to heavy workload with a full assessment in 2017, feedback was not delivered by WGNAS although the recommendations were discussed at the working group meeting. To cover the total data/information needs for stock assessment, the RCG has elaborated the recommendations from 2017 into the specific points that should be addressed by ICES EGs on diadromous fish before the RCG meeting in 2019, of which this is the third one.	See Report 2018, section 10 & annex 14.	WGBAST & WGNAS to report back to the RCGs before the meeting 2019, through Diadromous Subgroup.

NSEA 2018_20180915_R15	NSEA 2018	20180915	R15	The RCG recommends that WGBAST and WGNAS should wok towards the implementation of RDBES database to store their primary data.	WGBAST and WGNAS	The RCG Diadromous SG noted that current awareness of the database is limited among potential end users. Therefore, the RCG 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.	See Report 2018, section 10 & annex 14.	WGBAST & WGNAS to report back to the RCGs before the meeting 2019, through Diadromous Subgroup.
NSEA 2018_20180916_R16	NSEA 2018	20180916	R16	The RCG recommends WGNAS and WGBAST suggest a selection of stocks from which salmon variables (juveniles, smolts, ascending adults) have to be collected, and advise on temporal frequency (annual or not) of the collection of variables for salmon.	WGBAST and WGNAS		See Report 2018, section 10 & annex 14.	WGBAST & WGNAS to report back to the RCGs before the meeting 2019, through Diadromous Subgroup.

NSEA 2018_20180917_R17	NSEA 2018	20180917	R17	The RCG recommends WGBAST and WGNAS to comment on current quality assurance in their data, and recommend actions to improve QA in future.	WGBAST and WGNAS	Quality assurance is closely linked to data collection. At the meeting the group discussed in plenary with the RCG NSEA on possibly working with WGBIOP (Working Group on Biological Parameters) on scale reading QA by WGBAST and WGNAS. In addition the group discussed the merit of inter-calibration of electrofishing methods in the Baltic as this data is used for international stock assessment in contrast to the Atlantic area. The group however agreed that it would again be the end users of the data who should be consulted on QA of stock assessment data.	See Report 2018, section 10 & annex 14.	WGBAST & WGNAS to report back to the RCGs before the meeting 2019, through Diadromous Subgroup.

Recommendations to the other RCGs and LM, to be followed up by all RCGs

ID (auto, just drag)	RCG	Date	R	Decision or Recommendation	To who?	Background	Where to find more details	Expected action
NSEA 2018_20180906_R02	NSEA 2018	20180906	R02	Draft guidelines for subgroup work	RCGs & LM	Some subgroup lack focus and motivation in the formulation of the recommendation. Need to clarify to MS process for subgroup establishment and prioritizing and that staff will need to be committed	example to be found in excel of recommendations	Other RCGs to discuss, final discussion and communication to end-users at LM 2018
NSEA 2018_20180906_R03	NSEA 2018	20180906	R03	Draft ToRs of Landing Obligation	RCGs & LM	Subgroup on LO presented their report. New ToRs needed and suggested.	See Report 2018, section 9.	Other RCGs to discuss, final discussion and communication at LM 2018

NSEA 2018_20180906_R04	NSEA 2018	20180906	R04	Draft ToRs of Data Analyses and Quality Assurance Subgroup	RCGs & LM	Subgroup on Data involved in other projects, needs focusing and formal commitment of people	See Report 2018, section 6	Other RCGs to discuss, final discussion and communication at LM 2018
NSEA 2018_20180906_R06	NSEA 2018	20180906	R06	To launch the data call by the 5/3- 2019, with deadline to deliver the 5/5 2019.	RCGs & LM	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	See Report 2018, section 12	Other RCGs to discuss, final discussion and communication at LM 2018
NSEA 2018_20180907_R07	NSEA 2018	20180907	R07	Restructuring of RCG NS&EA and RCG NA	RCGs & LM	The idea of restructuring the RCGs NSEA and NA into one RCG with subgroups by topic (see WP1 FishPi2) has been discussed and was received positively by the RCG. A new marine region would be necessary as it is stated in the DCF (2017/1004 art. 9) that each marine region should have a RCG. This needs to be discussed with the EC. Some more practical aspects were also discussed such as if limitation of the number of experts would be necessary and the timing of the restructuration. This would be more easily when the working methods are better developed i.e. the structure of subgroups & its functioning. The RCG suggests to start in 2019. This point will also be discussed at the RCG NA.	See Report, section 3.5	Other RCGs to discuss, final discussion and communication at LM 2019

References

ICES, 2013. Report of the Workshop on Bycatch of Cetaceans and other Protected Species (WKBYC), 20-22 March 2013, Copenhagen, Denmark. ICES CM 2013/ACOM: 36. 55pp.

ICES, 2017. Report of the Working Group on Working Group on Biological Parameters (WGBIOP). ICES CM 2017/SSGIEOM:08.

Mugerza, E., Zarauz, L., Andonegi, E., Mendes, H., Moreno, A., Armstrong, M., and Börjes son, P. 2017. Deliverable3.1-A regional sampling plan fordata collectionofPETS (Protected, Endangered, and Threatened Species). fishPi project (MARE/2014/19)

Northridge, S. 2016. Identifying Sampling Needs for Protected Species Bycatch Monitoring. Report to Defra UK.

ICES (2018) WKPETSAMP report [conclude referencing]

Annexes RCG NSEA 2018

Annex 1 Participant list

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Annex 2 Terms of Reference

1. **Review progress since 2017 RCG's and 2017 Liaison meeting (14th report).**
   - Feed-back from Liaison meeting and broad summary of RCG related activities during 2017, including subgroups established.

2. **Governance model for the regional coordination group.**
   - Discuss the role(s) of RCGs in the DCF environment (EU MAP 'regional approach based on end user needs') and their relations with other 'DCF groups' (for e.g. STECF, PGECON)(there was a similar point in the TORs last year under 'data quality' section)
   - Feedback on Rules and Procedures for RCGs and proposed timing for adoption
   - Present the outcomes of different EU projects (MARE/2016/22 grants Fish Hub) - Based on outcome from FishPi2 and STREAM regarding intersessional groups, how to proceed ? Which ones to stay ? Pan regional vs regional? ToRs?
   - Information on DCF legal framework and related legal acts: adoption of AR template; upcoming work on EU-MAP after 2020 preparation.
   - Next steps and actions

3. **End-user interactions and identification of end-user needs**
   - Feedback of end-user needs from ICES/GFCM, JRC, STECF, other end users to the RCGs. Mapping of end user needs and information on end user meeting on the margins of the next Liaison meeting (1/10).
   - Produce an overview from the RDB on regional fisheries
   - Review issue list for the 2019/2020 benchmark stocks (by region) and produce an overview of sampling and quality on the stocks to be benchmarked in 2019

   ICES to provide benchmarked stocks; SUBGROUP 3 to provide quality indicators for these stocks?
   - Review of 2018 (2019) data calls and feedback from the RCGs to ICES/JRC/GFCM
   - Next steps and actions

4. **Regional plan**
   - Feedback from EU projects (FishPi2 WP1, STREAM); Clarification regional plan vs regional sampling plan. What has already been established and can be used in setting up regional plans?
   - Regional sampling plans for marine habitat and ecosystem monitoring, feedback from WKPETSAMP
   - Feedback from intersessional work on establishing regional sampling plan
   - Next steps and actions

5. **Data quality (assurance and control)**
   - Feedback from the data sub group (ToRs listed in LM report)
   - Relevant feedback from data workshops
   - Further steps towards DB development,
   - Upload logs
   - Feedback to MS on data anomalies
   - Documentation of quality procedures
     - what´s already in place ?
     - examples from Table 5A
   - Update of WorkPlans and Annual reports.
     - Table 1a automatic? Commission recommendation should be completed automatically
     - The use of the RDB to answer data calls, AR, etc – develop output (R scripts)
   - Metiers and other variables, feedback from metier work group WKMET
     - Clarification on how to store the variables (updated metier, stock names, harbour codes etc).
   - Next steps and actions

6. **Surveys**
   - Feedback from the intersessional group on cost sharing
   - Feedback from STECF meeting (EWG 18-04). Discuss proposal of EWG 18-04 to use stocks in Tables 1A and 1C of EU MAP as a starting point for the DST. Does the RCG want to include additional stocks?
   - Review 2018 regional coordination (MEDITS, MEDIAS)
   - Next steps and actions

7. **Diadromous species**

- Review progress since last years report.
- Review data transmissions
- RDB development
- Next steps and actions

8. Recreational Fisheries
- Review progress since last year
- Review progress of Pilot Studies
- Role of RCG – how can regional coordination support pilot studies and sampling plans?
- Next steps and action

9. Impact of management measures on data collection
- Feedback from the intersessional group on Landing obligation
- Next steps and actions

10. Incidental by-catch of birds, mammals, reptiles and fish
- Review progress of pilot studies
- Feedback from GFCM
- Next steps and actions

11. Next venue and chairs

12. AOB

Annex 3 Agenda

General time schedule:
Starting time Monday 14.00,
Tuesday – Thursday 09.00 - 18.00 - meeting time;
Friday ending at 12.00

Monday 3 September

14.00:	**Introduction** - Welcome & introduction of the participants, - Organization & house rules, - Adoption of the agenda and - Report format, (hosts and chairs)

14.15 – 16.00:	**TOR 1. Review progress since 2017 RCG's and 2017 Liaison meeting (14th).**
	- Brief review on progress since 2017 (presentation, questions and discussion)
	  - Feedback end-users ICES (Lotte)
	  - Feedback relevant EWGs, WKs, STECF (Christoph Stransky)
	  - WGGBIOP & SmartDots International (Julie Davies)
	  - FishPi2 – WP1 (Katja Ringdahl)

16.00 – 16.30:	Coffee break
16.30 – 18.00:	**Sub-groups (start)** **5 sub-groups are established, based on combination of the ToR's. Sub-group *A&B are scheduled from Monday - Wednesday*, Sub-group *C&D are scheduled for Thursday*; Sub-group *Salm are de salmon experts working from Tuesday – Thursday.*** Sub-Group A: TOR 5. Data quality (assurance and control) TOR 9. Impact of management measures on data collection TOR 10. Incidental by-catch of birds, mammals, reptiles and fish Sub-Group B: TOR 3. End-user interactions and identification of end-user needs TOR 6. Surveys Sub-Group C: TOR 2. Governance model for the regional coordination group. Sub-Group D: TOR 4. Regional plans Sub-Group Salm: Salmon and Recreational Fisheries (TOR 8)

Sub-group A&B

- Sub-Group A:ToR5 + ToR9 + ToR10
- Sub-Group B: ToR3 + ToR6

Goal: Do the work :)
Suggest what we can agree/decide on during this meeting
Suggest what we need to agree/decide on short time scale (~ a year) and how (in detail) we should achieve this
Suggest what we need to agree/decide on medium time scale (~ 2-3 years) and how we should achieve this

Tuesday 4 September

09.00-10.30	**Sub-groups A, B & Salm (continue)** - Sub-Group A:ToR5 + ToR9 + ToR10 - Sub-Group B: ToR3 + ToR6 - Sub-group Salm: Salmon experts & ToR8
10.30 – 11.00:	Coffee Break
11.00 – 12.30:	**Plenary:** - RCG and Liaison (14th report) (Jørgen) - RD-BES – general: (Jorgen) - Feed-back from ICES - RDBES (Henrik Kjelms) **Sub-groups A,B & Salm (continue)** - Sub-Group A:ToR5 + ToR9 + ToR10 - Sub-Group B: ToR3 + ToR6 - Sub-group Salm: Salmon experts & ToR8 ***Goal:*** Do the work :) Suggest what we can agree/decide on during this meeting Suggest what we need to agree/decide on short time scale (~ a year) and how (in detail) we should achieve this Suggest what we need to agree/decide on medium time scale (~ 2-3 years) and how we should achieve this
12.30 – 14.00:	Lunch
14.00 – 16.00:	**Sub-groups (continue)** - Sub-Group A:ToR5 + ToR9 + ToR10 - Sub-Group B: ToR3 + ToR6 - Sub-group Salm: Salmon experts & ToR8 ***Goal:*** Do the work :) Suggest what we can agree/decide on during this meeting Suggest what we need to agree/decide on short time scale (~ a year) and how (in detail) we should achieve this Suggest what we need to agree/decide on medium time scale (~ 2-3 years) and how we should achieve this
16.00 – 16.30:	Coffee Break
	- **16.30 – 18.00:** Feedback to plenary from subgroups (cfr guidelines for presentation)

Wednesday 5 September

09.00-10.30:	**Plenary** - FishPi2 – WP2 (Mark James) - FishPi2 – WP 3 (Nuno Prista) - Feedback to plenary from subgroups
10.30 – 11.00:	Coffee Break
11.00 – 12.30:	**Sub-groups (continue)** - Sub-Group A:ToR5 + ToR9 + ToR10 - Sub-Group B: ToR3 + ToR6 - Sub-group Salm: Salmon experts ***Goal:*** Do the work :) Suggest what we can agree/decide on during this meeting Suggest what we need to agree/decide on short time scale (~ a year) and how (in detail) we should achieve this Suggest what we need to agree/decide on medium time scale (~ 2-3 years) and how we should achieve this
12.30 – 14.00:	Lunch
14.00 – 16.00:	**Plenary session or Sub-Groups** - Feedback to plenary from subgroups - First Feedback from subgroup Salm
16.00 – 16.30:	Coffee Break
16.30 – 18.00:	**Plenary session** - Feedback to plenary from subgroups

Thursday 6 September

09.00-10.30:	**Plenary session** *Presentation from the Commission – s.q.* ***EU-MAP, AR template & evaluation feedback,*** ***preparation and upcoming work EU-MAP after 2020*** *Presentation overview FshPi2?? Katja? – to decide* *RDBES policy?=> Jorgen & Henrik?* **Subgroup C&D (*Input requested from NCs: present or by WebEx/Skype)***

10.30 – 11.00:	Coffee Break
11.00 – 12.30: ***WebEx/Skype)***	**Subgroup C&D (*Input requested from NCs: present at the meeting or by*** - Sub-Group C: ToR2: - Sub-Group D: ToR4 & ToR8 ***Goal****:* Do the work :) Suggest what we can agree/decide on during this meeting Suggest what we need to agree/decide on short time scale (~ a year) and how (in detail) we should achieve this Suggest what we need to agree/decide on medium time scale (~ 2-3 years) and how we should achieve this
12.30 – 14.00:	Lunch
14.00 – 16.00:	**Plenary session (*Input requested from NCs present at the meeting or by WebEx/Skype)*** - Findings & feedback from the subgroup C & D
16.00 – 16.30:	Coffee Break
16.30 – 18.00: ***WebEx/Skype)***	**Plenary session (*Input requested from NCs present at the meeting or by*** - Findings & feedback from the subgroup C, D & Salm

Friday 7 September 09.00-10.30:	**Plenary session**
	- Discuss open issues and finalize draft text
10.30 – 11.00:	Coffee Break
11.00 - 12.00:	**Plenary session** - Discuss open issues and finalize draft text - Announce next venue
Closure of meeting	

Annex 4 Follow up on recommendations from RCM NS&EA 2017 and LM 2017

LM x. RCG NS&EA 1: *Common naming of survey*	
RCG NS&EA 2017 Recommendation	The NS&EA RCG recommends the use of a single survey name and acronym for each survey for use in Regulation documents, work plans, assessments Working Group reports and advice sheets. These survey acronyms could/should take the form of 'Survey_Quarter_Member-state' e.g. IBTS_Q1_NED. This will help end users to easily identify the surveys.
Justification	Presently it is very difficult to get an overview of the survey used in assessment and thereby give an input to update the mandatory survey list in the regulation (EU) 2016/1251 do the many different acronyms used for the same survey
Follow-up actions needed	MS, ICES EWG, ICES secretary, STECF
Responsible persons for follow-up actions	ICES secretary, STECF
Time frame (Deadline)	September 2018
LM Comments	According to the ROP of the RCG, and the reviewed status of the RCG, no input from LM is required
Comment RCG NS&EA 2018	Work is ongoing and coordinated by the subgroup Surveys

LM x. RCG NS&EA 1: *Review of survey table*	
RCG NS&EA 2017 Recommendation	The NS&EA RCG recommends that member states review the information detailed in tables in annex 11 of this report, in order to identify any errors or omissions with any found to be reported back to the NS&EA RCG by January-2018.
Justification	The RCG NS&EA has tried to produce a table giving all information on surveys presently used in assessment and conducted by all MS in the region. This table needs to be confirmed by the MS as the data information is rather diverse
Follow-up actions needed	MS
Responsible persons for follow-up actions	MS
Time frame (Deadline)	January 2018
LM Comments	According to the ROP of the RCG, and the reviewed status of the RCG, no input from LM is required
Comment RCG NS&EA 2018	Work is ongoing and coordinated by the subgroup Surveys

LM x. RCG NS&EA 3: *update of advice sheet*	
RCG NS&EA 2017 Recommendation	The RCG NS&EA recommends that additional input data information is provided in table 5 (Basis of the assessment - Input data) on ICES advice sheets. Details of each survey used in the assessment should include the survey acronym (see Recommendation 1 above) and the current age-range and year-range included in the assessment. Ex. on a presently sufficient information from an advice sheet: Commercial catches (international landings, ages from catch sampling by métier), two survey indices (IBTS Q1 & Q3; ages 1 to 5); maturity data assumed fixed through time; time-varying natural mortalities from the SMS multispecies model (ICES, 2015).
Justification	Data used by stock can easily be found in the updated advice sheet is this is consistently done for all stocks
Follow-up actions needed	ICES secretary
Responsible persons for follow-up actions	ICES secretary
Time frame (Deadline)	August 2018
LM Comments	According to the ROP of the RCG, and the reviewed status of the RCG, no input from LM is required
Comment RCG NS&EA 2018	Needs further discussion with the end-user ICES to see how to implement this

LM x. RCG NS&EA 4: *Quality evaluation tools based on IC*	
RCG NA 2017 Recommendation	RCG NS&EA recommends that ICES/WGCATCH considers the development of quality evaluation tools based on InterCatch and other available outputs. Missing to provide the information on sample intensities requested in the data call should be considered a data transmission failure
Justification	As long as Inter-Catch is the main tool to document data used for stock assessment it is crucial for the for the stock assessor to have information on the data quality and presently the only source of information that can be used in the IC format is sampling intensity and numbers of ages and lengths. However, not all MS provided this information in 2017 although it was made mandatory in the data call.
Follow-up actions needed	ICES secretary, MS
Responsible persons for follow-up actions	ICES secretary (on the data transmission failure)
Time frame (Deadline)	With the relies of the 2018 data call (January 2018)
LM Comments	According to the ROP of the RCG, and the reviewed status of the RCG, no input from LM is required
Comment RCG NS&EA 2018	The 2018 data call has no significant changes to the one of 2017; Will be discussed further with the end-user ICES

LM x. RCG NS&EA 5: *Quality evaluation tools based on RDB*	
RCG NS&EA 2017 Recommendation	RCG NS&EA recommends WGCATCH to set-up a process to develop summary reports from RDB data, together with the R code in support; PGDATA should be tasked to feed into the process with a list of analyses of interest to the benchmarks. Finally it would be important that the R functions developed for the analyses would be shared in open repositories so that they can be considered by the RCG NS&EA Data group in the production of its own fishery overviews and reports. Such exploration should be carried out in full respect for the RDB data policy and involve a pool of data providers that is able to reflect main concerns on data quality and sampling design into the elaboration of these reports.
Justification	The present RDB, is at an early stage of development and already demonstrates largely unexplored potential for both RCGs and ICES community. As a current storage place for all commercial sampling, landings and effort data from EU countries, the RDB has the capacity to feed routine summary reports of the data available that can be useful to both RCGs and Assessment Working Groups
Follow-up actions needed	WGCATCH, PGDATA
Responsible persons for follow-up actions	Chairs of WGCATCH and PGDATA
Time frame (Deadline)	2018 meetings of WGCATCH and PGDATA
LM Comments	According to the ROP of the RCG, and the reviewed status of the RCG, no input from LM is required
Comment RCG NS&EA 2018	This is agreed to be a priority for the future. The subgroup on the RDBES will look into this further.

Annex 5. Brief review from expert groups related to regional coordination

14th LM report

With the adoption of the DCF (recast) the role of the Liaison meeting has changed compared to the prevision DCF period 2009-2016 as the legislation has changes from being an official forum where recommendations from the Regional Coordination Meetings (RCM) were reviewed and if endorsed MS should take these recommendations into account when conduction their national programmes.
According to the DCF article 9 (6) "Regional coordination groups shall coordinate with each other and with the Commission, where issues affect several marine regions".
In addition to the provision mentioned above the Commission has established an Expert Group on Fisheries Data collection (E02750). The mission of this expert group is to assist the Commission in the implementation of the (DCF) concerning the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy. Some of the tasks of the expert group or sub-groups are to:
Coordinate and share information with Member State representatives in the implementation of DCF:

- with experts on social and economic data for fisheries, aquaculture and the processing industry;
- with experts on regional coordination of biological data collection, management and use under the DCF;

Therefore, the Liaison meeting is an expert group to assist the Commission on data collection issues.
At the Liaison meeting the representatives from the RCGs, relevant expert groups and DCF data end-users presented their work and findings relevant to the EU fisheries data collection. Further, the Rules of Procedures for the RCGs have been adopted for all groups except for the PGECON. This group is regarded as the RCG for collection of economy data for the fisheries and aquaculture sectors. The adopted RoPs differ between RCGs, but whether this will have an impact on cooperation between the RCGs is not yet known.
The upload of data to and the use of the regional database (RDBES) by the RCGs (Baltic, NSEA and the NA) has constantly been increased. It is incontestable that the RDBES is a prerequisite for regional cooperation and coordination.
For years, the structure and number of RCGs (RCMs at that time) has been debated over in the light of improving efficiency and reduction of the number of meetings. This discussion mainly focussed on the three 'Northern' groups. At LM 2017, the other groups, RCG LDF, RCG MED and well as RCG LP expressed the wish to remain under the current scope.

For the 'Northern' groups, combining RCG NS&EA and NA seems most obvious, this merge could however not be decided upon at the LM without additional consultation of the groups. Recent pan-regional work in the subgroups clearly indicate that the RCGs are already moving into improved regional cooperation, paving the way for further integration while keeping an eye on specific regional aspects. Restructuring the RCGs is part of the current MARE/2016/22 call. The RCGs will reconsider the composition of the meetings in the light of the outcomes of the call. Sieto Verver (chair RCG LDF) will ensure reporting specific ideas to the RCGs coming from the call.

Proposal for study proposals was again put forward to the Commission. The proposal were:

- Further development of the Regional Database (RDB) – now called Regional Database and Estimation System (RDBES)
  and
- SmartDots, a tool for age reading and maturity workshops & exchanges (replacement of WebGr)

A number of recommendations were put forward to the LM. These recommendations were mostly directed to the groups themselves or to data end-users. The LM did not comment on these recommendations.

PGDATA

The ICES Planning Group on Data Needs for Assessments and Advice (PGDATA) met in Nantes, France, 13-16 Feb 2018. PGDATA started a second 3-year programme with renewed terms of reference. After having achieved some practical and concrete objectives in its first 3-year programme, PGDATA entered a round of discussion with ICES on its future, and considered some of the weaknesses that appeared in the first years. The

new objectives assigned to PGDATA are to focus on the **development of the Quality Assurance Framework (QAF)** for both fishery-dependent and fishery-independent data, create links between the different expert groups, promote for implementation the statistical improvements and good practices and make them easily accessible to the public.
An ICES-structured approach for a QAF is proposed, taking into account all ICES initiatives in the field of collection, processing and storage of fisheries dependent and independent data, and the work conducted in other fora such as STECF (e.g. EWG 17-04). This framework, also compliant with the principles developed in the European Statistical System, will need to be presented to ICES, discussed and commented in order to come up with a more complete proposal in 2019. The accessibility to recommendations and good practices has been addressed through a restructuring of the ICES Quality Assurance Repository. The proposal makes use of the ICES website development and search facilities, and will need the implication of several ICES working groups to come up with an agreed proposal in 2019. In the longer term, PGDATA would like to establish living documents classified by topics – this would include all recommendations and good practices produced by the wealth of ICES technical workshops and working groups.
The **communication and feedback on data issues with assessment working groups** was given a special focus, acknowledging the previous difficulties, and trying to learn from this experience. A large scan of exploratory figures produced by the assessment working groups in their reports has been undertaken and classified by topics. The objective was to demonstrate the large creativity undergoing in this field, to propose a catalogue of what is done for every end-user, and set the stage for a forum like WGCATCH and WGISDAA to take over some ideas and develop generic figures capturing the main information needed for the end users. It is the belief of PGDATA that the exploratory figures used on the entry data for assessment models are the link between data collection and processing, the QAF and assessment & advice.
PGDATA also proposes an **ICES ASC 2019 Theme Session on data collection,** using the same name as during the 2016 ASC to ensure a continuity of work: “When is enough, enough? Methods for optimising, evaluating, and prioritising of marine data collection". The idea is to prepare a special issue on the findings in a scientific journal.
PGDATA, however, only had a limited number of experts this year and seeks **wider participation** to cover all the tasks mentioned above.

WGBIOP & SmartDots

The Working Group on Biological Parameters (WGBIOP) is an expert group devoted to the provision of biological parameters at a national, regional, and stock level. WGBIOP originated as a subgroup under the Planning Group on Commercial Catches, Discards and Biological Sampling (PGCCDBS) with the aim to develop a quality assurance framework for data collection and interpretation of biological parameters. The group has progressed to include all stages of biological parameter provision from methodological improvements to implementation of procedures and development of supporting tools for a range of well-established stocks, newly exploited species and those lacking a quality assurance framework. WGBIOP was presented at the RCG North Sea meeting and contact was established with the salmon and eel experts present.
Biological parameters are among the main input data for most stock assessments and mixed fishery modelling and the group aims to strengthen the bridge between data collectors and end users, which is often lacking. The group is now entering into its second term and aims to make further improvements to the quality of sampling and estimation procedures and integration of these improvements to the benchmark process in ICES and at a regional level. The development of tools that support such procedures has also been part of the groups’ remits, which has worked closely with ILVO (Belgium), DTU Aqua (Denmark), and ICES to develop SmartDots International. This tool currently consists of three modules: the age reading software, a web interface and database and a reporting module. It is designed to support training of age readers, inter-calibration between national laboratories and the provision of quality assured age data for stock assessment purposes. Work is already in progress to adapt the tool for maturity staging purposes. Support, feedback and improvements are ongoing but will require financial support to ensure that the full potential of SmartDots is reached and in line with the needs of the end-users. In 2017 WGBIOP put forward a recommendation to the RCG’s to investigate possible financial resources to support further developments of SmartDots (ICES, 2017).

WP1 Core group meeting - Extended minutes :

The meeting took place on Wednesday 14th March 13:00 – Friday 16th March 16:00, at the Danish Technical University, Lyngby, Copenhagen

Participants: Katja Ringdahl, SLU-Aqua, Sweden (coordinator WP1)
Marie Storr-Paulsen, DTU-Aqua, Denmark
Jörgen Dalskov, DTU-Aqua, Denmark
Joel Vigneau, IFREMER, France
Sieto Verver, WMR, the Netherlands
Els Toreele, ILVO, Belgium
Christoph Stransky, TI-SF, Germany
Maria Hansson, SLU-Aqua, Sweden
Jon Elson, CEFAS, UK
Leonie O´Dowd, MI, Ireland
Rita Vasconcelos, IPMA, Portugal
Jose Rodriguez, IEO, Spain (by correspondence)

Welcome and introduction

All participants presented themselves
Marie Storr-Paulsen informed about housekeeping rules at DTU-Aqua

Open discussion on objectives for the RCGs. Analysis on how well we fulfil the identified objectives. What are the obstacles?

The meeting started with that all participants were given an hour to (on paper) identify what they think are the objectives of the RCGs. For all the identified objectives the participants were further asked to reflect upon what would happen with that specific objective if there were no RCGs and also what is needed to achieve the objective (present situation, desired situation, actions needed and obstacles). The different identified objectives were then sorted into 5 categories (regional workplan, regional sampling plan, effective data collection, improved quality and end-user interactions). A lot of objectives were identified. Most of them are parts of the overall goal “To improve the effectiveness in data collection and to optimize quality and transparency of the data that forms the basis of advice”.

The group discussed the identified objectives, action points to reach them and obstacles in plenary. Paolo Carpentieri from WP1 in the Mediterranean consortium participated through Skype in the discussion. Some key elements were identified. Firstly, there needs to be an overall understanding and agreement of the general architecture of a regional workplan. This needs to be supported by shared and agreed documentation. It became obvious that many participants assumed that a regional sampling plan is the same as a regional workplan, while it became clear after the discussion that the latter has a much broader scope. Main obstacles identified were further limitations in time, resources and commitment for intersessional work. A problem that was discussed is that intersessional work for the RCGs commonly is an “invisible” task at the national institutes which means that it might be difficult to prioritize when resources are limited.

RCG subgroups and intersessional work.

The group did, based on the discussions on objectives, action points and obstacles, continue to discuss how the intersessional work in the RCG subgroups can be strengthened. There are several challenges that needs to be considered, in attempts to make the RCG intersessional subgroup work more effectively. These challenges include time management across people and institutes and to make RCG work more visible, career promoting and rewarding. It is usually individuals, not institutes, which take on tasks in the RCGs. This might end up in

situations where it, on the individual level, is difficult to prioritize the regional tasks if there are time constrains and if national tasks are better known at the institutes.
WP1 suggest more structured and permanent sub-groups. The subgroups should be pan-regional for the RCG NS&EA, RCG NA and RCG Baltic to avoid scattering of expertise. The pan-regional groups can have regional tasks. Each sub-group should have generic and specific ToRs. Each subgroup should be led by (a) chair(s). The chair can delegate tasks to different person(s). It is important that the work given to the subgroup is doable given the amount of resources. The first task each year for the chair is thereby to make a workplan/ road-map, including mile stones and timeline, for the year. If tasks are too excessive the chair can bring it to the LM for prioritization. The tasks and output from the subgroup fall into 2 main types of work i) Tasks to develop tools for internal RCG work or ii) Preparatory work for decision making, including input for regional workplans. Each year the subgroup shall prepare a short report. The report should be structured in a way so it is clear what objective each output have. The participants of the report shall be authors of the report and it shall be traceable.
It is further important that the institutes and MS take more responsibility for the RCG intersessional work (not only individuals). WP1 thereby suggest that the workplan/roadmap the subgroups are suggested to produce every year shall be communicated to heads of institutes/NCs. Each institute should confirm what resources they make available.
WP1 identified seven subgroups and will suggest these subgroups, including generic ToRs for the subgroups to the RCGs 2018. The subgroups are:

a. Subgroup on implication of management measures on data collection
b. Subgroup on effective interaction between end-users and RCGs
c. Subgroup on data analysis to support RCG work
d. Subgroup on design and implementation of regional sampling plans
e. Subgroup on surveys
f. Subgroup on diadromous species
g. Subgroup on regional database

Regional workplan

One of the main tasks for the regional coordination groups is agreement on and preparation of regional workplans. To the knowledge of the members in the WP1 core group no such plans have been put forward. WP1 discussed why. To some extent this might be explained by the fact that many people consider a regional workplan equal to a regional sampling plan, which require a high level of cooperation. It might also be a consequence of an uncertainty of what a regional workplan looks like.

WP1 realizes that there are elements in the national workplans that could be regionalized. Such elements could for example be otolith exchanges and workshops or documentation and implementation of QAF. WP1 were during their meeting brainstorming on different parts of the data collection that have a potential to be regionalized and will present this to the RCGs 2018. However, the RCGs need to think about such elements themselves as well. If agreements can be made it is suggested that the RCGs create limited regional workplans covering just one (or a few) element(s) of data collection to test how it can work.

A main obstacle for a region to submit a regional workplan is that it presently is unknown how this shall be done. A template for a regional workplan that could complement the national workplans needs to be developed.

Interaction with end-users
The yearly meeting between the chairs of RCG NS&EA, RCG NA, RCG Baltic and ICES secretariat was held the days prior to the WP1 meeting. Marie Storr-Paulsen informed about the content of the meeting. The interaction with ICES are predominantly carried out through ICES databases and through the benchmark process.

Communication
The work carried out within the RCGs is relatively invisible. This is considered a problem both internally, as it might contribute to problems allocating resources and expertise to regional work, as well as externally as stakeholders and end-users are not aware of the work done in the RCGs. WP1 thereby suggest a pan-RCG

website. Each region can have a specific part of the webpage. The website needs to be managed by the RCGs but it needs to be discussed who should pay for it (MS or COM?). It will serve both the internal needs for the RCGs but also contribute to outreach and increase visibility and transparency. The webpage should for example contain links to the different DCF sites in the MS, relevant reports, reference material, tools, links to ICES QAF and inventories of data collected.

WP1 further suggest that the RCGs should have a logotype allowing work carried out within the remits of the RCGs to be recognized.

Report
The outcomes from the WP1 meeting will be presented at the RCG NS&EA, RCG NA and also, if possible, at RCG Baltic. Feedback from these presentations will be included in the final report.

FishPi2 - WP2: Suitability for Regional Sampling

The WP2 of fishPi2 is led by Liz Clarke & Dr Alastair Pout from MSS, Scotland. The WP is being carried out in tandem with WP3 and is considering the characteristics of regional fisheries, and the criteria that should be met prior to setting up regional sampling plans. It aims to develop software tools that can objectively define and identify regional fisheries. Its main deliverables will be a set of "Guidelines and criteria for determining suitable regional fisheries" and "Software tools to identifying regional fisheries from regional data sets", alongside "Analyses of regional data sets to identify suitable regional fisheries". After a kickoff meeting in 17th January, a data-sharing agreement was signed and a data call on trip-level landing data (2015-2016) was issued. 10/10 countries replied to the data call. A meeting was held in Aberdeen, Scotland, 14th – 18th May 2018, where the WP was further planned and analyses started. During the meeting there were agreements on working definitions and criteria to use to define suitable stocks. Also, the datasets started to be explored with several R-functions being planned and starting to be developed. At the moment, analyses continue and a draft R-package has been produced. Results of analyses will be discussed in a meeting: 29 Oct – 2nd Nov, Lisbon, Portugal

Fish Pi2 - WP3: Regional Sampling Plans

The WP3 of fishPi2 is led by Liz Clarke & Dr Alastair Pout from MSS, Scotland. The WP is being carried out in tandem with WP2 and aims to draft a regional sampling plan that achieves a better design for data collection while maintaining the autonomy of data collection of MS institutes. The work package includes two main deliverables: 3.1) An example regional sampling plan for the chosen fishery(s) for 2019 and 3.2) a repository of tools used in designing the regional sampling plan described in 3.1). Among the tools that planned for the repository are a) Data sharing agreement, b) Guidelines on Principles of Implementation of Sampling Designs, c) fishPiCodes package, d) Simulation study including logbook and biological elements, e) Proposal of rules for the allocation of effort across regional strata, f) Brief text outlining possible cost implications of introducing the regional sampling plan, g) An outline text of the necessary steps and stages to be considered in moving from a national to regional sampling scheme(s), h) Text outlining possible regional data storage systems and estimation approaches, i) Text outlining either an agreed regional protocol or issues to be addressed to agree regional protocols for the collection of data on catches and biological variables, j) Brief text outlining rules and recommendations to be used as reference in the establishment of future regional sampling plans. After a kickoff meeting in 17th January, a data-sharing agreement was signed and a data call on trip-level landing data (2015-2016) was issued. 10/10 countries replied to the data call. A meeting was held in Aberdeen, Scotland, 14th – 18th May 2018, where the WP was further planned and analyses started. In this meeting there was a general agreement on the general terms of draft Regional Workplan and a review of the Guidelines on Principles of Implementation of Sampling Designs. Additionally fishPiCodes package were further updates and the simulation study and scenarios were outlined, by defining sampling units, stratifications, effort allocation algorithms and results and outputs that will be considered in the simulation of regional onboard and onshore sampling plans in two case-studies (North Sea and Iberian Peninsula). Post-meeting a data call for length data collected in 2015 and 2016 was issued. This data call will contribute to answer the question: Is the use of landed weight a suitable proxy for the actual numbers at age and numbers at length data that is provided to many of the stock assessment models? To date 8/10 countries sent in their data. Simulation analyses are being conducted at MSS with a first set of results planned for circulation and posterior discussion during the upcoming results meeting (29 Oct – 2nd Nov, Lisbon, Portugal).

Annex 6 Data submissions to the RDB for the RCG NS & EA

Landing data

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

Vessel flag country (CL)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Belgium	54	56	57	57	54	75	74	79	75
Channel Islands							16	15	4
Denmark	86		82	86	97	103	97	103	113
England		129	128	125	113	113	112	119	129
Estonia	1	1	1	2	5	9	4	5	7
France		92	93	87			167	163	153
Germany		33	62	61	59	61	63	72	79
Ireland									20
Latvia	1	1	1	1	1	1	1	2	7
Lithuania	28	26	30	35	25	8	7	5	5
Netherlands	66	75	78	90	86	90	89	95	96
Northern Ireland		37	43	39	32		37	28	37
Poland	18	19	9	10	10	12	17	18	19
Portugal				10	9	12	9	9	
Scotland		100	99	98	92	77	79	85	103
Spain						19	14	19	18
Sweden	57	70	66	68	67	64	71	72	68
Wales		21	28	34	40	32	30	32	30

All countries except Portugal have uploaded landings data for data year 2017, but France uploaded landings data the day before the last RCG NS & EA meeting day. The numbers of species compared with the previous years' values indicate that all data have been uploaded for all uploading countries.

Landing data

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

Vessel flag country (CL)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Belgium	34208	33950	33479	32424	30550	48267	51600	51397	53269
Channel Islands							47	47	23
Denmark	178368		157304	161003	153450	158652	173366	181924	173632
England		28287	30165	27345	42989	39456	67714	70280	57085
Estonia	22	26	17	28	42	62	63	61	82
France		55361	56333	54357			73124	77925	28281
Germany		3602	15817	14859	14796	14775	16526	16960	16625
Ireland									90
Latvia	22	21	21	33	26	28	13	16	108
Lithuania	118	96	201	257	152	165	194	187	358
Netherlands	33872	33430	33639	32078	28880	29822	34146	36389	26567
Northern Ireland		526	542	424	450		661	301	330
Poland	148	103	10	26	53	155	92	255	85
Portugal				127	187	158	147	157	
Scotland		13411	13911	13288	23365	23264	69004	74992	83901
Spain						1607	1071	1410	1475
Sweden	38261	38144	29703	28706	32696	31586	34720	39436	33098
Wales		52	61	100	113	112	86	103	123

The numbers of data records for landings for data year 2017 compared with the previous years' values indicate that all data have been uploaded, except for Portugal, France, Poland and Channel Islands. Normally these countries uploaded more data records, but there could be a good reason.

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	2017
Belgium	17	19	19	18	15	16	14	14	13
Channel Islands							2	3	3
Denmark	51	49	53	49	46	40	40	38	38
England		101	104	95	94	70	67	72	72
Estonia	1	1	1	1	2	3	2	2	2
France		33	36	32			99	45	1
Germany		42	32	35	29	24	22	27	32
Ireland	5	4	8	6	9	5	3	3	5
Latvia	1	1	1	1	1	1	1	1	2
Lithuania	2	5	8	6	5	6	5	8	3
Netherlands	46	48	48	44	47	41	58	48	39
Northern Ireland		15	16	15	9		11	9	9
Poland	3	2	1	1	1	1	2	1	2
Portugal	1	1	1	4	3	3	2	2	
Scotland		57	57	59	55	49	43	52	55
Spain						4	4	4	4
Sweden	48	42	40	49	55	45	46	42	45
Wales		6	9	10	7	6	8	7	7

All countries have uploaded effort data for data year 2017, except Portugal. The number of metiers uploaded for France shows that France have uploaded effort for only one metier, where they normally upload effort data for between 33 and 99 metiers. The numbers of metiers for data year 2017 compared with the previous years' values indicate that all data have been uploaded for all other countries.

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	2017
Belgium	9	23	19	16	13	12	13	13	14
Denmark	93	94	94	91	96	95	99	93	95
England	110	99	102	115	101	89	90	93	91
Estonia						2		1	
France				1					
Germany	71	84	70	110	102	107	99	102	130
Ireland									2
Latvia	1	1	1	1	1	1	1	1	
Lithuania			1	2	2	2	2	2	2
Netherlands	32	35	37	40	34	40	39	39	43
Poland	11	18	3	17	16	16	30	35	20
Portugal									
Scotland		23	26	26	104	90	96	99	99
Spain	17	19	11	12	11	12	14		22
Sweden	4	75	76	81	71	80	98	90	97
Wales								1	

Of all major fishing countries all countries have uploaded length data for 2017, except France. Estonia, Latvia, Portugal and Wales have also not uploaded length data for 2017, but these countries are minor fishing countries in the North Sea and Eastern Arctic. The numbers of species for data year 2017 compared with the previous years' values indicate that all data have been uploaded for all other countries.

Age samples

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

Sampling country (CA)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Belgium	6	6	7	7	3	6	6	6	8
Denmark	19	21	22	22	22	21	22	23	23
England	8	9	9	9	8	9	8	9	9
France				17				16	
Germany	9	10	8	10	8	11	9	9	9
Ireland									2
Lithuania									1
Netherlands	12	13	12	12	12	12	11	12	12
Poland	1	2	3	1	1	1	3	3	2
Portugal									
Scotland		10	9	10	11	11	10	10	11
Spain	1	1	5	4	4	4	5		5
Sweden	4	5	6	5	5	5	5	5	5

Of all major fishing countries all countries have uploaded age data for data year 2017, except France. Portugal have also not uploaded age data for data year 2017, but Portugal is a minor fishing country in the North Sea and Eastern Arctic. The numbers of species for data year 2017 compared with the previous years' values indicate that all data have been uploaded for all other countries.

Conclusion on the data submission to the RDB for the RCG NS & EA

- All countries have uploaded landings except Portugal. France uploaded very late.
- All countries have uploaded all effort data except Portugal and France. France have only uploaded effort data for 1 metier, last year France uploaded effort for 45 metiers.
- All the major fishing countries have uploaded age and length sample data, except France.
- From the number of species uploaded for the years it looks like in general all data have been uploaded for all the uploading countries.

Annex 6. The need for Secretariat provision for the RCGs.

Context:
The Regional Co-ordination Groups (RCGs) are important strategic bodies for co-ordinating the collection, analysis and evaluation of European fisheries data. There are five RCGs: North Sea and Eastern Arctic, North East Atlantic, Baltic, Long Distance Fisheries and Mediterranean &Black Sea all of which currently rely upon the RCG Chairs to provide the Secretariat functions of their respective groups. As these groups mature and define their ToRs, develop multiple sub-groups with formal remits, delivery structures and work plans, it is becoming clear that there is a need to consider the provision of dedicated Secretariat support for the RCG Chairs to ensure the efficient use of RCG MS resource allocation. A consistent approach to administering RCG activities, facilitating communication, helping to drive intersessional work and supporting the work of sub-groups would significantly increase the performance of the RCGs.

Secretariat functions:

- Provide a common support platform for organising RCG meetings in collaboration with the RCG Chairs
- Generation of meeting minutes and reports
- Establishing and maintaining a dedicated RCG website and document/data archive
- Assisting Sub-Groups in progressing intersessional work to help maintain momentum and timely delivery
- Assist in the development of process, protocols and documentation needed for the effective administration and working of the RCGs
- Provide continuity and timely reporting across the RCGs
- Act as a single point of contact for the RCGs to field both internal and external communications

Resource requirements:
The provision of Secretariat services in the context described above could be delivered with a dedicated allocation of personnel time. At current workload levels this role would probably not constitute a full time role but may be more suited to a relatively modest percentage of an experienced senior administrator/managers time, together with a greater proportion of a basic administrative assistants time. The detailed definition of the functions notes above is required to develop a credible costing.

Costs:
The proposed level of service could be delivered through and existing RCG member of through a separate company or third party with relevant expertise/experience. The principal costs would be staff time, travel and subsistence, web development and site hosting, SharePoint or similar working platform if not already available.

Business model for the provision of Secretariat role:

1. Fully funded – by the EU
2. Partly funded by the EU with proportionate or matching RCG member contributions to operational costs
3. Fully funded by RCG members – wither flat rate contributions or proportionate contributions based on an agreed equitable formula.

Annex 7. Minutes from end-user meeting between ICES and RCG chairs

The meeting was held in ICES, Copenhagen the 12-13 of March 2018 and 13 persons participated.

Background to the pan-regional RCG subgroup on end user needs

Name	Email address	Affiliation
Maria Hansson	maria.hansson@slu.se	RCG Baltic Co-chair
Marie Storr-Paulsen	msp@dtu.aqua.dk	RCG North Sea and Eastern Arctic (RCGNSEA) co-chair
Els Torreele	Els.Torreele@ilvo.vlaanderen.be	RCGNSEA co-chair
Joel Vigneau	Joel.Vigneau@ifremer.fr	PGDATA chair
Sieto Verver	sieto.verver@wur.nl	RCG Long distance fisheries chair
Jon Elson	jon.elson@cefas.co.uk	RCG North Atlantic (RCGNA) co-chair
Leonie O'Dowd	leonie.odowd@marine.ie	RCG NA co-chair
Christoph Stransky	christoph.stransky@thuenen.de	STECF rep
Lotte Worsøe Clausen	Lotte.worsoe.clausen@ices.dk	ICES secretariat
Neil Holdsworth, ICES	NeilH@ices.dk	ICES secretariat
Rui Catarino	rui.catarino@ices.dk	ICES secretariat
Ruth Fernandez	ruth.fernandez@ices.dk	ICES secretariat
Henrik Kjems-Nielsen	henrikkn@ices.dk	ICES secretariat (afternoon)

In the legal text of the DCF recast (EC) No 2017/1004 and EUMAP (2016/1251/EU), multiple references are made to data collected at regional level based on "end user needs" (see articles of EUMAP . This requires close collaboration between RCGs, tasked with the regional coordination of data collection and end users of the scientific data. In March 2017, the chairs of the Northern RCGs (BALTIC, NSEA and NA) initiated a dialogue meeting with ICES as their main scientific enduser to establish a framework that facilititate the feedback between data collection and data requirements. The objectives for this initial meeting was to:

- start formalizing a framework of communication between data providers (RCGs) and data end users (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.

Following the meeting in 2017, it was agreed that the chairs of the RCGs continue this dialogue as a panregional and intersessional subgroup with the following ToRs as presented in the 2017 Liaison report:

Pan Regional subgroup on end user needs	
Initial ToRs	• 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. • 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.
Workplan 2018/next steps	• RCG chairs to establish end-users subgroup (Initial members RCG chairs). • RCG Chairs in consultation with endusers to draft ToRs and deliverables. • RCG subgroup to report regularly to members.
Responsible persons for follow-up actions	Chairs of RCGs, end-users (ICES, STECF, other RFMOs)

Objectives and ToRs of 2018 meeting

The objective of the meeting between the RCG chairs and ICES was to continue the process between ICES and the RCGs to improve the dialogue and feedback between data providers (RCGs) and data end users (ICES) and specifically to review the agreed actions from the 2017 meeting on benchmark process, data calls and surveys and agree on next steps.

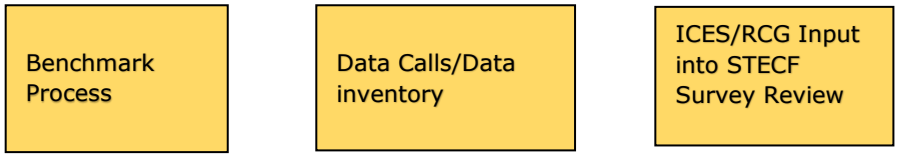
ToRs

1. Review progress since 2017
   To see how best to improve on current interactions and communications with RCGs and ICES including using established mechanisms particularly in reference to:
   a) STECF mandatory survey list
   b) Benchmark process
   c) Data inventory
   d) Data calls
2. AOB:
   a) Sharepoints
   b) RDB data call

RCG chairs met on the 12th March 2018, to finalise the terms of reference and agenda for the meeting with ICES on the 13th.

Progress 2017 and next steps in 2018

In, 2017 at the first meeting between ICES and the RCG chairs, three main mechanisms were identified to improve the feedback between data endusers and data providers:



Review of 2017 progress and next steps ahead in 2018 focussed on these three mechanism.

Benchmark Process

2017 agreed actions: ICES are reviewing the benchmark cycle with reference to the number of stocks, potential bottle necks. 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

Outcome: Data Summaries were produced by RCGs in 2017, See Annex 14 RCGNSEA report (Whiting) and Annex 8 RCGNA report (Lophius spp) for draft Stock Data Summaries. The following limitations were highlighted when interpreting data summaries for benchmark purposes:

- Data is only presented for EU countries
- Not raised and potentially incomplete (Upload logs)

Irrespective of these concerns, RCGs can play an important role in assisting with the data evaluation process for benchmarks by highlighting issues with the data – for example retrospective differences.

2018 Next steps:

- ICES will provide the RCGs with a list of stocks to be benchmarked and data compilation workshops timetabled for 2018/2019.
- ICES is developing an Issue list database which will be live and available to RCG.
- RCGs to provide feedback on the process as well as the stocks to be benchmarked.
- Issue list to include a column categorising the data needs and justification (eg. category 3 to category 1)

Data usage categories

Used
collected, needed but not currently used
not used
not collected yet

- ICES will include a mandatory field in the issue list on future data needs. RCG can use this information to prioritise future data collection and identify data sampled but not used. Link this to the ACOM Benchmark scoping process. At RCG annual meeting, RCGs can provide feedback on the Issue list directly through the database.
- Data summaries- RCG through data group, continue to develop data summaries for stocks to be benchmarked and present at 2018 RCG annual meeting. Agree on minimum data products for benchmark work shops. Consider information in the data summaries, which RCGS can provide to ICES to assist with the data evaluation. Can the intersessional DATA group be tasked with this and develop a package with the tasks, code and references to data.
- Stock Annex: Currently free text, standard table to include more details on data parameters (longer term).

Assessment Data Call and Data Iventory:

2017: RCG/ICES to compare Fisheries assessment data call (Excel sheet) to ICES stock list database and the NWPs Table 1ABC, DATRAS+, RDB (and National DBs).
Feedback to ICES for information on potential gaps, help form a process of prioritising data needs and manage expectations.

2018 Next steps:

- Data Call Review: the assessment working groups will already develop the data calls for next year at the working groups, and comment on the previous data calls. This information will be compiled by ICES and send to the RCGs for their annual meeting.
- RCG will review the data call at their annual meeting and feedback to ICES, deadline is Liaison meeting so information can be incorporated into data call for following year.
- RCG scan also compile list of issues MS encountered when responding to the data call. RCG chairs will ask MS to collate any concerns and issues in time for the RCG meeting and compile at the meeting to feedback to ICES.
- Feedback on format- use existing format but add column to state what data is used from surveys.
- Data needs vs Data availability: ICES is developing a data call module for stock coordinators to identify data variables and communicate with data provider. Use the data call module, rather than the SID to provide feedback on data needs vs data availability.
  Assume all data parameters requested by stock coordinator will be used in assessment and advice, and that stated requirements are not wish lists . Data submitters can comment on data request- ie is it collected, should it be collected.

Surveys:

2017 agreed actions and outcome:

- ICES to provide coding for inventories from DATRAS (and other survey DBs) and RDB with ref to DCF AWP. A survey list was produced from the ICES secretary and delivered to the RCG.
- 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.
- ICES provided RCG with summary on which surveys are used in ICES, their codes/names and which stocks they are used for.
  RCGs designed spreadsheet to compare table 10 surveys with national workplan and ICES surveys Spreadsheets were send out to National correspondents to check surveys included in national work plan and related to table 10, how they should be named, what additional surveys should be included. RCG re updated information on which surveys are used for which stocks based on ICES advice sheets.
- RCG made an inventory on what MS has listed in annual work plan, and when possible match to table ten.
- RCG proposed naming convention: this ensures the consistency between table 10 and ICES,
- ICES agreed with some tweaks (eg international coding) will include this in the “Vocabulary” to ensure consistency with advice sheets and DATRAS.

2018 Next steps:

- Shortterm steps ahead: RCGs will provide tidied up version to ICES for quality check - ICES will quality check the information on what surveys are used as basis of advice.
- Requirements for Table 10 surveys: All data on table 10 will need the data housed in international Databases, ie ICES databases (DATRAS/Acoustic/Egg & Larvae, UWTV – under review).
- STECF survey review and scoping meeting: As the survey review still requires extensive preparation, change review meeting into scoping meeting to prepare for the review, agree on evaluation criteria, what information should be used in the review and what information should be presented in table 10. The outcome of the scoping meeting would allow commenting by different parties such as ICES, and consultation with Member States, ie National Correspondents before actual review meeting. Survey evaluation criteria need to be carefully considered as they now need to address the following question: “why should DCF surveys be mandatory”. The information linked to surveys and reflected in table 10 also need to be carefully considered in the light of mandatory surveys and legal requirements

of task/cost sharing. The criteria for grouping and/or categorising surveys in table 10 also needs to be considered

AOB:

Recipients of Data calls: ICES provide the National Correspondents and ACOM with the data calls problems arose in some Institutes that were not copied in. Some data calls were not received by the right recipients. E-mail receipts have been set up and the Data calls tool is now on the sharepoint.

ICES sharepoint support for RCG Intersessional work: ICES agreed to set up SharePoint and GitHubs for RCG intersessional subgroup work. RCG members can get access to ensure platform for intersessional work of various regional and pan regional subgroups.

Recommendations database: The ICES recommendation database can be used for the RCG-ICES recommendations. RCGChairs can put it in or ICES secretariat will put it in the DB.

RDB data call: No change although highlight and improve on the text in relation to BMS fraction and Unregistered discards. Upload logs should be used to register whether BMS fraction has been uploaded or is not available. Include references to the links on the ICES website. JE to prepare and circulate a draft data call for release mid April with a deadline of mid June.

Access to RDBES: JRC have requested access. EC can have access to the data but all other requests should come via NCs to member states rather than through RCGs or ICES. This also applies to requests from scientists at JRC. Datras is open access. Open access means that the data can be used incorrectly. Data protection could be an issue. Would prefer a portal so that we can provide aggregated data at a certain safer level (even raised).

GITHUB for RCG: How to maintain metier lists when RDB access. ICES sharepoint on the RDB already has a list but has to be maintained by the administrators. RCGs could control the list on GITHUB. Metier lists and other code lists are available and accessible to the public on ICES website. Metier workshop could create a GITHUB for storing documents with links to the ICES website and page with code lists.

Annex 8 Rules and Procedures RCGNSEA

1. Scope

1.1. These Rules of Procedure are valid for the Regional Coordination Group (RCG) for the North Sea & Eastern Artic 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 of Procedure are established based on the Article 9(5) of the above mentioned Regulation.
1.3. These Rules of Procedure are established 6th September 2017 by the following EU Member States coordinating their data collection activities in the NSEA:

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 of procedure

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

Annex 9 Present regulation on confidential data:

REGULATION (EU) 2017/1004

SECTION 4

Data management process

Article 13

Data storage

Member States shall:

(a) ensure that primary data collected under national work plans are safely stored in computerised databases and take all necessary measures to ensure that they are treated as confidential;

(b) ensure that metadata relating to the primary socioeconomic data collected under national work plans are safely stored in computerised databases;

(c) take all necessary technical measures to protect such data against any accidental or illicit destruction, accidental loss, deterioration, or unauthorised consultation or distribution.

COUNCIL REGULATION (EC) No 1224/2009

Article 113 (112-114)

Confidentiality of professional and commercial secrecy1.

Member States and the Commission shall take all necessary steps to ensure that the data collected and received within the framework of this Regulation shall be treated in accordance with applicable rules on professional and commercial secrecy of data.

COUNCIL REGULATION (EC) No 223/2009

Article 3 (definition)

7. 'confidential data' means data which allow statistical units to be identified, either directly or indirectly, thereby disclosing individual information. To determine whether a statistical unit is identifiable, account shall be taken of all relevant means that might reasonably be used by a third party to identify the statistical unit;

Annex 10. Feed-back from RCG NS&EA on recommendations received

ID	EG	Year	Recommendation	Recipients	Comments	Section from report this relates to	Final recipient action	Recommendation category	EG:icesrct_name	Recipients:icesrct_LongName	Item Type	Path	RCG NSEA Notes
30	WGBAST	2018	Catch estimates of recreational salmon and sea trout fisheries are uncertain, incomplete or totally missing for several countries. Studies to estimate these catches are needed.	RCMs;#424;#COUNCIL;#39	Addressed to Baltic Sea RCM and ICES Member States	Catch estimate studies needed		New or extended survey	WGBAST	Regional Coordination Meetings;#424;#ICES Council;#39	Item	admin/Recomendations/Lists/Recommendations 2018	Wrong mechanism - this is a compliance failure. Recommendation - nb. Recommendation - note that it is mandatory for all MSs to collect data on recreational fisheries. Recommend that the Commission derogations should be advised to ICES.
31	WGBAST	2018	Sufficient data coverage of sea trout parr densities from typical trout streams is needed from all countries. Continuing sampling for longer time-series is required for assessment.	RCMs;#424;#COUNCIL;#39	Addressed to Baltic Sea RCM and ICES Member States	Sea trout parr densities sampling required		New or extended survey	WGBAST	Regional Coordination Meetings;#424;#ICES Council;#39	Item	admin/Recomendations/Lists/Recommendations 2018	Refer to decision tree for inclusion of survey in mandatory surveys list/inclusion in AWP for funding (art in DCF regulation - 6 points) in EC presentation

33	WGBAST	2018	Bycatch of salmon in the pelagic fishery for other species should be explored.	RCMs;#424	Addressed to National Institutes (EU-Map) and Baltic Sea RCM	Salmon bycatch in pelagic fishery		New or extended survey	WGBAST	Regional Coordination Meetings;#424	Item	admin/Recomendations/Lists/Recommendations 2018	Refer to decision tree for inclusion of survey in mandatory surveys list/inclusion in AWP for funding (art in DCF regulation - 6 points) in EC presentation. Suggest, specify additional information needed to initiate process (which species, which metier).
68	WKASMSF	2018	WKASMSF recommends to implement the 'WKMATCH 2012 maturity scale revised' (as described in chapter 4) in the ICES and RCG databases following the implementation plan (as described in chapter 7), and use this as the only scale for data submissions from 01-01-2020.	ICES Data Centre;#390;#WGBIOP;#203;#ACOM;#48;#SCICOM;#49;#RCMs;#424		WKASMSF Recomm.		Other	WKASMSF	ICES Data Centre;#390;#Working Group on Biological Parameters;#203;#Advisory Committee;#48;#SCICOM;#49;#Regional Coordination Meetings;#424	Item	admin/Recomendations/Lists/Recommendations 2018	RCG NSEA endorses recommendation that RDB uses the same scale (insert reference), distibuted to RCG members and other ICES countries and communicated to WGBIOP.

71	WKASMSF	2018	WKASMSF recommends to adopt the 'WKMATCH 2012 maturity scale revised' and approve the implementation plan (presented in chapter 7). Approval should be sent to WGBIOP. (Note that all requests with regards to maturity scales or stages in the ICES, RCG and GFCM databases should be directed, in the form of a recommendation, to WGBIOP for approval.)	WGBIFS;#95;#WGMEGS;#121;#WKNEPS;#393;#PGDATA;#237;#WGBIOP;#203;#WGIDEEPS;#201;#WGNEACS;#140;#WGBEAM;#118;#WGCATCH;#202;#WGALES;#185;#IBTSWG;#99;#WGIPS;#138;#ICES Data Centre;#390;#RCMs;#424		WKASMSF Recomm.		Other	WKASMSF	Baltic International Fish Survey Working Group;#95;#Working Group on Mackerel and Horse Mackerel Egg Surveys;#121;#Workshop on Nephrops burrow counting;#393;#Planning Group on Data Needs for Assessment and Advice;#237;#Working Group on Biological Parameters;#203;#Working Group on International Deep Pelagic Ecosystem Surveys;#201;#Working Group for North-east Atlantic Continental Slope Survey;#140;#Working Group on Beam Trawl Surveys;#118;#Working Group on Commercial Catches;#202;#Working Group on Atlantic Fish Larvae and Eggs Surveys;#185;#International Bottom Trawl Survey Working	Item	admin/Recomendations/Lists/Recommendations 2018	See above (implementation plan for No. 68)

										Group;#99;#Working Group of International Pelagic Surveys;#138;#ICES Data Centre;#390;#Regional Coordination Meetings;#424			

72	WKASMSF	2018	All survey groups should update their manuals with the correct references (see chapter 4 in this report) and include or update the conversion table for the national maturity scales.	WGBIFS;#95;#WGMEGS;#121;#WGACEGG;#117;#WKNEPS;#393;#PGDATA;#237;#WGBIOP;#203;#WGIDEEPS;#201;#WGNEACS;#140;#WGBEAM;#118;#WGCATCH;#202;#WGALES;#185;#IBTSWG;#99;#WGIPS;#138;#ICES Data Centre;#390;#RCMs;#424		WKASMSF Recomm.		Other	WKASMSF	Baltic International Fish Survey Working Group;#95;#Working Group on Mackerel and Horse Mackerel Egg Surveys;#121;#Working Group on Acoustic and Egg Surveys for Sardine and Anchovy in ICES areas 7, 8 and 9;#117;#Workshop on Nephrops burrow counting;#393;#Planning Group on Data Needs for Assessment and Advice;#237;#Working Group on Biological Parameters;#203;#Working Group on International Deep Pelagic Ecosystem Surveys;#201;#Working Group for North-east Atlantic Continental Slope Survey;#140;#Working Group on Beam Trawl Surveys;#118;#Working Group on Commercial Catches;#202;#Working Group on	Item	admin/Recomendations/Lists/Recommendations 2018	RCG NSEA Endorses - Should be adopted within the SIS - connversion scale should also be included.

										Atlantic Fish Larvae and Eggs Surveys;#185;#International Bottom Trawl Survey Working Group;#99;#Working Group of International Pelagic Surveys;#138;#ICES Data Centre;#390;#Regional Coordination Meetings;#424			

74	WKASMSF	2018	WKASMSF recommends to follow the suggested method of estimation of the maturity ogive (see chapter 9) for the 'WKMATCH 2012 maturity scale revised' and GFCM scales.	ACOM;#48;#ICES Data Centre;#390;#WGBIOP;#203;#RCMs;#424		WKASMSF Recomm.		Other	WKASMSF	Advisory Committee;#48;#ICES Data Centre;#390;#Working Group on Biological Parameters;#203;#Regional Coordination Meetings;#424	Item	admin/Recomendations/Lists/Recommendations 2018	Endorse plus suggest include scales.
92	WGHANSA	2018	A pelagic survey to be carried out on an annual basis in Autumn in the western Portuguese coast to provide information on the recruitment of small pelagics (particularly sardine and anchovy) in that region	PGDATA;#237;#WGCATCH;#202;#RCMs;#424		Section 4		New or extended survey	WGHANSA	Planning Group on Data Needs for Assessment and Advice;#237;#Working Group on Commercial Catches;#202;#Regional Coordination Meetings;#424	Item	admin/Recomendations/Lists/Recommendations 2018	Procedure for surveys (as above)

94	WGHANSA	2018	Length distributions and biological parameters of catches are collected for sardine in area 7 by countries operating in those waters. The WG is seeking additional participation from countries fishing sardine in area 7, especially experts from Denmark, Germany and the Netherlands .	WGCATCH;#202;#RCMs;#424;#PGDATA;#237;#WGCHAIRS;#80		Section 7		Other	WGHANSA	Working Group on Commercial Catches;#202;#Regional Coordination Meetings;#424;#Planning Group on Data Needs for Assessment and Advice;#237;#Annual Meeting of ICES Expert Group Chairs;#80	Item	admin/Recomendations/Lists/Recommendations 2018	Normally expect to contact the ACOM members for the countries concerned - Supplementary question - addressed from MSs present in RCGNSEA - NLD, DEU and DNK - to ask if there is a specific issue with regard to insufficient expertise? - Also to note EUMAP thresholds for sampling.
108	WGRFS	2018	Studies of the impacts of catch and release are lacking for most common recreational species. More studies need to be funded on key species including cod, sea bass, pollack, sea trout, salmon, and bluefin tuna through a	RCMs;#424		New surveys		New or extended survey	WGRFS	Regional Coordination Meetings;#424	Item	admin/Recomendations/Lists/Recommendations 2018	Studies on named species are covered by EU MAP - mandatory to provide data. Not clear if WGRFS has asked for data through official data call. - NB to clarify with WGRFS (Kieran Hyder)

			proposal for EU lot project.										
130	WGBYC	2018	Fleet level sampling programmes need to be designed to ensure adequate sampling for assessments of protected species bycatch. The design needs to consider which areas, métiers, number of vessels to be sampled, amount of sampling days/hauls etc. Priority areas for monitoring should be informed by the Bycatch Risk Assessment work of WGBYC and the FishPi	WKPETSAMP;#581;#RCMs;#424		Fleet level sampling programmes		ToR for EG	WGBYC	Joint WGBYC/WGCATCH Workshop on sampling of by-catch and PET species;#581;#Regional Coordination Meetings;#424	Item	admin/Recomendations/Lists/Recommendations 2018	Bram to suggest proposal for a survey - No current need for directed bycatch survey. Need for new sampling programme needs to take into account cost and fitness for purpose. Can we make suggestions to improve current sampling programmes to more effectively cover PETS? Understood that commercial sampling design isn't appropriate - Likely need separate and specific sampling to look at PETS, may be informed by Pilot Studies where commercial sampling not sufficient.

			method used in PETSAMP.										
136	ADGBYC	2018	The ADG recommends to coordinate between WGBYC and RCGs which species/metiers are the main interest to track for each RCGs	WGBYC;#150;#RCMs;#424		-		Other	ADGBYC	Working Group on Bycatch of Protected Species;#150;#Regional Coordination Meetings;#424	Item	admin/Recomendations/Lists/Recommendations 2018	See above - 130

	WGRFS		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 more MRF data are included in stock assessments. The initial proposal of a simple approach of including raised estimates and a short assessment of quality of the data (e.g. WGRFS Quality Assurance Tool (QAT)) 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									RCG - Important that all data used in stock assessment stored in RDB and that methods are standardised and how to combine data is better understood. While we are still in pilot phase under EUMAP for recreational fishery surveys,this is not highest priority at least this year - perhaps 2-5 years. Need to finalise the fundamentals of the database before adapting the database.

			historical data sets										

	WGRFS		Propose that the European Commission fund a service contract lot under the EMFF umbrella on post release mortality of recreational hook and line caught fish. This should assess current state of knowledge and fill knowledge gaps for some key species. To achieve this, a mixture of desk-based study and experimental work is needed to compile data on mortality of hook-and-line caught fish, to underpin the evidence-base to account for discard survival. It needs collaboration across Europe and with other countries including the USA to ensure that the best									RCG endorses proposal - Recommends take forward via the liaison meeting - request for funds from EC direct management - expect 1.2 million Euros available that could be utilised to help intersessional work of this type. (Jorgen - draft recommendation for LG).

			use of existing data is made.										

Annex 11. First Output FishPi2 WP1

The National Correspondents present at the meeting, were given an presentation about the first output coming from FishPi2 – WP1.

Do the RCG agree on the statements from WP1 that we need to

- Better consider the complexity of management of personal resources across MS in future RCG work
- Make institutes responsible to tasks to a larger extent (in contrast to individuals)
- Make RCG work more visible, traceable and career promoting
- We need to consider regional workplans in a broader perspective than regional sampling plans

Do the RCG agree with WP1 suggestions that to achieve this we need to have

- A more formal structure of pan-regional (NS&EA, NA, Baltic) subgroups.
- The subgroups should have an appointed chair(s), clear tasks decided by the RCGs and personal resources shall be made available in communication with the heads of the institutes.
- The subgroups should have a clear road-map with milestones.
- The subgroup should produce short reports were the participants should be listed as authors. Reports should be made available (website) and should be traceable.
- Do the RCG think the 7 subgroups suggested by WP1 are relevant and covering the RCG work?
    - Subgroup on implication of management measures on data collection
    - Subgroup on effective interaction between end-users and RCGs
    - Subgroup on data analysis to support RCG work
    - Subgroup on design and implementation of regional sampling plans
    - Subgroup on surveys
    - Subgroup on diadromous species
    - Subgroup on regional database
- Establish a webpage supporting internal communication (incl storage of reference lists, tools etc), consultation with end-users, information to stakeholders. The webpage should also have links to national DCF webpages, other relevant groups and sources of information
- A logo :)
- A discussion on building blocks, other than regional sampling plan, that can be included in a regional workplan.
- Go ahead with a limited RWP.

Annex 12 Further Development of the RDBES

Annual report - tables created automatically from the coming RDBES

The following is an overview made fast by looking into which of the Annual Report's, AR, tables the RDBES could automatically fill-in. The RDBES is under developed at the moment (2018 09 19), the commercial part should be ready in 2019, then developments for the recreational and diadromous species should be started. When the RDBES has been developed, it would be most cost efficient and obvious to produce some or parts of the Annual Report's tables for the countries. Because the RDBES contain the sampling information and it would be most cost efficient to automatically generate and fil-in the needed information directly into the Annual Report's tables. This will make it as easy as possible for the countries to automatically produce some of the heavy tables in the Annual Reports.

Table in the AR	Relevance to auto-fill from RDBES	The information relate to/cover	Description of relevance and needs for development
Table 1A	Could be done		The table can be created, the area field will contain all areas for the stock. But if the fields: Ref. year, RFMO/RFO/IO, Selected for sampling, etc. should be filled in it is needed to develop extra tables and an interface to fill-in those fields.
Table 1B	Could be done		The table can be created, but a new table need to be developed to storing the information of what should be sampled, etc. and an interface to populate the table need to be developed for several fields: Frequency, Length, Age etc.
Table 1C	Most cost efficient way to automatically create the tables is from the RDBES	All the assessment stocks	This is a table which should be automatically filled from the RDBES (Achieved number of individuals measured at the national level). But an new table and a interface for populating the variables length, age, sex, and the minimum numbers of individuals sampled need to be developed.
Table 1D	Could be done		The first columns can be created for the relevant stocks can created, the filling in of the rows can be done but it is not beneficial to use the RDBES for that.
Table 1E	Most cost efficient way to automatically create the tables is from the RDBES	Diadromous species	This is a table which can be automatically filled from the RDBES (Achieved number of Anadromous and catadromous). But an interface for inserting the variables length, age, sex, and the minimum numbers of individuals sampled must be developed.
Table 1F	Most cost efficient way to automatically create the tables is from the RDBES	By catch	This is a table which can be automatically filled from the RDBES (Total number of PSU in the sampling year, Achieved number of PSU in the sampling year). But a table and an interface for inserting need to be developed for the variables Expected occurrence of recordings etc.
The rest of the tables	Should not be done		Cannot be filled with data from the RDBES.

Annex 13. Summary of the responses on the questionnaire regarding the Landing Obligation.

Q1. Has the MS successfully adapted or implemented their onshore sampling programme to capture all landings categories? (including BMS)
Summary: Yes; 10, No; 3, Not tested; 0 & NA; 4
Generally, it is stated that sampling sheets are generic and will record BMS landings as another category or that this category has been added so it can be registered separately. Databases allow the introduction of new categories.
Overall, the filled questionnaires indicate that landings of BMS are rare. The ability to sample BMS differs somewhat between MS. SWE has included Cod BMS in the Baltic in the sampling protocol; this catch fraction is sampled in a similar way as a size category. However, the challenge is to raise the Cod BMS and discard data to avoid "double counting". GER also occasionally samples Cod BMS in the Baltic. LTU comment that all landings are available on the designated landing sites. UK_Eng_Wales, NL and POL have reported that it is difficult to sample BMS landings, if present, as it is not possible to determine its origin (i.e. vessel, trip) and/or due to lack of access to BMS landings onshore.
Q2. Has the MS successfully adapted or implemented their offshore sampling programme to capture all catch categories? (Including BMS)
Summary: Yes; 13, No; 3, Not tested; 0 & NA; 1
MS can register BMS as a separate fraction on the sampling sheets. BMS can be stored in the Databases. BMS sampling is captured in most offshore sampling procedures as a separate catch category. In other words, sampling procedures allow to sample BMS. However, landings of BMS fish are rare. Some countries (ESP) have not observed any changes in the fleet behaviour but they are ready to collect data in the required format. In GER BMS information from the Baltic comes from the logbooks only, while SWE samples Cod BMS at sea in a similar way as other size categories. Similar to the onshore sampling programme, SWE note that the challenge is to raise the collected data and avoid "double counting".
Q3. Has there been issues getting access to vessels and all components of the catch and landings (incl. BMS landings)?
Summary Onshore: Yes; 6, No; 9, Not tested; 0 & NA; 2
For those responding with a yes it was either related to lack of storage space for the BMS landing on shore, loaded directly on to lorries, high refusal rates to sampling places (POL), mixing of BMS landings by species and by vessels (NL, UK_Eng_Wales) or it being a rare event with little landings (DK, UK_SCO)
Summary Offshore: Yes; 4, No; 11, Not tested; 2 & NA; 0
For those with a yes response it was related to high refusal rates thus making it difficult to get on board vessels (POL), difficulty in accessing certain fleet segments (IRL, SWE Baltic) and one country responded (ESP) saying yes but this was related to no BMS landing being found in the samples.
Q4. Has the MS commenced the logging of responses when trying to source sampling events/observer trips?
Summary Onshore: Yes; 8, No; 4, Not tested; 2 & NA; 3
Protocols vary from full logging of all phone calls (POL), to partial logging (IRL) where there are issues in one area; In general, sampling ashore does not seem to be an issue. Countries that answered no stated that they do not have any problems therefore no need to log the responses.
Summary Offshore: Yes; 12, No; 4, Not tested; 1 & NA; 0
All countries have a system for recording the responses and the time stamps vary from 2005 (DK) being the earliest implemented to April 2018 (UK_NIR). For those countries not logging they have stated that there are no problems. In one instance (LTU), this process has not been tested.
Q5. Is there any evidence of an effect on the quality of data?
Summary Discard: Yes; 3, No; 9, Not tested; 6 & NA; 1
Summary Landings: Yes; 1, No; 12, Not tested; 3 & NA; 3
Summary Control data: Yes; 4, No; 8, Not tested; 5 & NA; 1
For half or more of the MS there has not been any evidence of an effect of the landing obligation on the quality of data.
The effects observed on the quality of discard data, tested or not, relate in general to refusal rate, more pronounced observer effects and confusion relating to the complexity of landing obligation with all the exemptions. The latter also affecting the observers work at-sea. In respect to the quality of control data, the main concerns are the very limited amount of BMS and discards recorded, incompleteness of data and in some countries the logbook has not until recently been able to hold all the information required. Further, there are concerns that the complexity of the landing obligation leads to errors in the logbooks.

Another overall conclusion is that very few countries have made any analysis of the effects, at least only a few mention any analysis. Some (DEN SWE) have tested the registered amount of BMS landings against their observer programme; the general conclusion is that the registered amounts are much lower than expected. A single country (BEL) has used last haul data from the control agency to analyse if the refusals in their discard programme causes bias.

Q6. Is there any evidence of a change in fishing behaviour? Technical (fishing gear, sorting processes) and tactical (fishing grounds and seasons)?

Summary: Yes; 5, No; 8, Not tested; 3 & NA; 1

Again, the overall conclusion is that the landing obligation has not resulted in any changes in fishing behavior and none has made adjustments to account for the ones observed in their programme.

The few changes observed relate to implementation of more selective gears.

Also again, it seems that very few countries have carried out any analysis.

Q7. Is the MS doing any analysis for any observer effect?

Summary: Yes;5, No; 9, Not tested;1 & NA; 1

Nine MS have not analysed a potential observer effect on the fishing behaviour when it comes to discarding. Reasons for this is partly because on board observing is not applicable either because of exemptions in landing obligation, de minimis rule, there are practically insignificant amounts of discarding or only harbour/self-sampling is applicable. Some MS reported that the observer effect is being analysed and a few also reported the general outcome or conclusions from the analysis. ESP has carried out some bias analysis, LAT reported that a simple analysis of observer effect has been performed and the result showed that fishermen didn't change fishing grounds in the trips with observers on the board. POL analysed VMS and logbook data in order to check whether there is any observer effect. The results showed that there is a good overlap of the spatial pattern of trips with and without observers on board. POR mentioned a preliminary study on the comparison of observer effect during offshore sampling, but for the period before the Landing Obligation (2012-2015) SWE in the Baltic have tested but not thoroughly. However, discarding continues as usual in most observer trips and comparisons with logbooks sales slips from observed vessels do in most cases not show large differences between observer/non observer trips. SWE (North Sea) have not tested observer effect. However, they note that no BMS landings were observed on board while discards were very low in the observer trips. This suggests a possible change in fishing behaviour which needs to be tested further. While UK_Eng_Wales have also not tested observer effect, regular reviews of the observer coverage have not provided any visual evidence of an observer effect.

Q8. What additional measures has the MS put in place to implement the LO /regional discard plan?

Summary: Yes; 8, No; 6, Not tested; 0 & NA; 2

In order to improve the reporting of discards, logbooks have been amended to include the new capture categories. Also funding has been granted (IRL and UK_Eng_Wales) for improving the harbour facilities for handling, processing and storing extra landings resulting from the landing obligation. SWE has changed quota allocation system, quota allocated individually to vessels and are to some extent transferrable during the year. GER has attempted to get access to data from the last-haul project and the ESP_Basque has carried out some selectivity and survival studies. LTU have arranged meetings with fishers and fish trade stakeholders in matters of implementing the landing obligation as well as provide consultation by electronic communication devices

Q9. Is or has the MS been involved in Pilot studies concerning the implications of the LO i.e. last haul data, video monitoring, reference fleets

Summary: Yes; 12, No; 3, Not tested; 1 & NA; 0

12 of the responses indicated that there has been some studies relating to the landing obligation, these have been in the form of the analysis of last haul data, (DEN, GER, POL, SWE) others refer to survivability and selectivity studies, (Esp_Basque, NLD, UK Eng-Wales) the remaining countries have commenced or are commencing using CCTV (DEN, NLD, and the UK_Eng_Wales and SCO). Other countries (POR) have conducted studies, but before the landing obligation and more recently the Azores mention the use of the Discardless project

An example of a data sheet and protocols from EFCA for last haul data from the Baltic is presented in Appendix III

Q10. Has the LO had any implication on recreational fisheries?

Summary: Yes; 1, No; 11, Not tested; 1 & NA; 2

The vast majority of MS answered no or not tested to this question, one MS (LAT) mentioned that they commenced a pilot study in 2018 of relative share of catches of recreational fisheries compared to commercial

fisheries. Another country mentioned that it has caused confusion amongst the anglers in the Baltic region (GER)

Q11. Has the MS carried out trials or desk studies on potential choke species?

Summary: Yes; 9, No; 6, Not tested; 2 & NA; 0

Definition: A choke species is a species for which the available quota is exhausted (long) before the quotas are exhausted of (some of) the other species that are caught together in a (mixed) fishery (Zimmermann et al., 2015).

Numerous countries have carried out published desk studies:

GER (Baltic): see Zimmermann et al. 2015. Handling of and possible solutions for choke species withing the reformed CFP- Example of plaice in teh Baltic Sea IP/B/PECH/IC/2015-124.

North Sea: Demersal species in the North Sea (mixed fisheries study) in frame of the ICES WGMIXFISH and EU project DRuMFISH (also other regions).

IRL (Celtic Sea): Fishing trials were conducted in the Celtic Sea in 2014 and 2015 to assess possibile mitgation of choking by adapting fishing behaviour. Results were mixed but in gereral showed that skipper modification of fishing activities (timeings and location of tows) were unlikely to reduce choking. http://www.bim.ie/our-publications/fisheries/ BIM Desk study

NLD (North Sea) WMR is partner in a project that is executed in cooperation with the demersal industry. For a number of demersal trips in the North Sea all quoted discards are registered. First results indicate that rays is a choke species.

SWE mentions that it is not a big problem with choke species in the Baltic (directed cod fishery with few species under LO in the bycatch) NSEA Mostly through the Scheveningen group.

UK Cefas have worked with seafish to create a model to identify and rank potential choke stocks based on a bioeconomic model used in previous publications (in press). Selectivity experiments and data enhancement work using CCTV cameras looking at area VII haddock to review the extent of the issue and potential for mitigation. More selective gear will help but are not the only answer.

DEN have completed some work in connection with the mixed fisheries working group, ESP had looked at Gadoids in Celtic Sea, mackerel and hake in Iberian waters and the Basque country have conducted studies on pelacic species caught by trawlers in the Bay of Biscay.

A more detailed report on work carried out in the North Sea is to be found further in this Annex

Q 12. Are MS monitoring de minimis (and if so, how)

Summary: Yes; 5, No; 4, Not tested;3 & NA;4

The majority of the countries are monitoring *de minimis* in some form. In the at sea sampling programme in BEL, the crew is sorting the catch into the different catch categories on a haul by haul basis. In case a fraction of the catch of a species is defined as *de minimis* by a crew member, the observer will treat this fraction as *de minimis* too. Information related to total weight, length and age distributions of this *de minimis* fraction will be collected and stored in the ILVO SmartFish database. In IRL the species will be sampled as part of the discard estimate sampled on observer trips however they do not record if this is *de minimis* or high surivival or illegal discards. In POR a more detailed analysis is carried out; monthly evaluation of logbook data of discards declared by the the vessel owners versus the corresponding accumulated catches of the species under *de minimis*.

SWE in the Baltic, LAT and ESP rely on records in the logbooks.

ToR 2: RDB Analysis

Baltic Sea

Analysis for the Baltic focused on the demersal species in the RDB (i.e. cod and plaice). Most countries have reported BMS landings of cod and plaice (Table 1). In addition, a total of 22 kg of BMS landings of salmon for the period 2015-2017 has been reported by POL. As presented quantities are low they are not likely reflecting the actual catch. This indicates that discarding is still occurring.

The reported BMS landings of cod in the RDB in 2017 are compared with the reported BMS landings of cod in the ICES WGBFAS report (ICES, 2018) in Table 2. Some inconsistencies are found; BMS landings are reported for Germany and Latvia in the WGBFAS report but not in the RDB and the reported quantities of Polish BMS landings differ between the WGBFAS report and the RDB.

The number of countries that have reported sampling of BMS cod at sea has increased in the period 2015-2017; sampling by two countries in 2015, 3 countries in 2016 and 4 countries in 2017 (Table 3a). GER and LAT have reported sampling of BMS cod at sea in 2017 (Table 3a) while BMS landings are not reported in the RDB

(Table 1). All countries except Lithuania also reported sampling of discards at sea. LTU and SWE consistently reported sampling of BMS landings of cod at the market in the period 2015-2017 (Table 3b).
Only a few records of logbook registered discards are reported in the RDB.

Table 1: Total BMS (t) landings reported to RDB 2015-2017 in the Baltic Sea

	Cod (*Gadus morhua*)			Plaice (*Pleuronectes platessa*)		
	2015	2016	2017	2015	2016	2017
DEU						
DNK	128	36	32			2
EST						
FIN						
LTU	108	63	15			
LVA	117	61				
POL	43	49	93			3
SWE	238	218	93			2
Total	634	427	233			7

Table 2: Comparison between BMS landings of cod submitted to RDB and to ICES WGBFAS (Eastern Baltic cod only) for 2017

	BMS landings cod submitted to RDB			BMS landings cod submitted to WGBFAS		
	BMS (t)	HUC (t)	% BMS (of total landings)	BMS (t)	HUC (t)	% BMS (of total landings)
DEU		350	0.0	10	337	2.7
DNK	31	6111	0.5	31	6109	0.5
EST		1	0.0		1	0.0
FIN		191	0.0		191	0.0
LTU	15	1715	0.9	14	1712	0.8
LVA		2	0.0	21	2058	1.0
POL	75	6542	1.1	15	6468	0.2
SWE	89	4316	2.0	89	4316	2.0

Table 3a: BMS sampling (indicated as nr of trips) at sea reported to the RDB 2015-2017 in the Baltic Sea

	Cod		
	2015	2016	2017
DEU			22
DNK			
EST			
FIN			
LTU	6	3	3
LVA		10	8
POL			
SWE	6	60	44

Table 3b: BMS sampling (indicated with x) at market reported to the RDB 2015-2017 in the Baltic Sea.
* Error in uploaded data; BMS cod was sampled in 2016 and 2017.

	Cod		
	2015	2016	2017
DEU			
DNK			
LTU	X	X	X

POL			
SWE	X	*	*

North Sea

DEN and SWE have reported BMS landings for 2017 (Table 4). Where the Swedish BMS landings consisted mostly (295 t) of herring. Three countries have reported sampling of BMS landings of plaice, cod, haddock and whiting at sea, where BEL and SWE sampled one trip and Scotland 11-21 trips (Table 5). Furthermore, Scotland has reported sampling of BMS landings of haddock and whiting for 1 trip at the market (Table 5). Only Belgium reported logbook registered discards for sole for 19 trips in the RDB.

Table 4: Total BMS (t) landings reported to RDB 2017 in the North Sea

	BMS (t)
BEL	
CHA	
DEU	
DNK	0.5
ENG	
ESP	
EST	
IRL	
LTU	
NIR	
NLD	
POL	
SCT	
SWE	297
WLS	
Total	297.5

Table 5: BMS sampling (indicated as nr of trips) at sea and at the market reported to the RDB 2017 in the North Sea

	At sea sampling				Market sampling	
	Plaice	Cod	Haddock	Whiting	Haddock	Whiting
BEL	1					
DEU						
DNK						
ENG						
NIR						
NLD						
SCT		11	21	13	1	1
SWE		1	1	1		
WLS						

North Atlantic

IRL has reported BMS landings for 2017 (Table 6). SCO has reported sampling of BMS landings of haddock for two trips (Table 7). No countries have reported sampling BMS landings at the market. Only BEL reported logbook registered discards for sole for 13 trips in the RDB.

Table 6: Total BMS (t) landings reported to RDB 2017 in the North Atlantic

	Hake	Norway lobster	Whiting
BEL			
CHA			
DEU			
DNK			
ENG			

ESP EST IRL LTU NIR NLD POL SCT WLS	0.189	0.02	10.33
Total	0.189	0.02	10.33

Table 7: BMS sampling (indicated as nr of trips) at sea reported to the RDB 2017 in the North Atlantic

	Haddock
BEL	
DEU	
ENG	
ESP	
GBR	
IRL	
NLD	
PRT	
SCT	2
WLS	

ToR3: Contribute to and review ToRs & outcomes of WGCATCH 2017

WGCATCH have a routine ToR to 'Document and review changes in legislation that affect data collection and data quality and evaluate their impacts'

Background: The landing obligation has brought changes in reporting all catches and have implications on sampling of commercial catches. . Furthemore in 2017 the first EUMAUP will be implemented and the pace of transition to statistically sound sampling is expected to increase. The complexity of these processes has been followed up closely by WGCATCH through routine ToRs with the group meetings acting as fora where difficulties and changes can be reported, advice for sampling and estimation obtained and recommendations on best practice or data quality issues to both national laboratories and end-users.

Expected Deliverables: Forum to discuss specific problems and find appropriate solutions and recommendations of best practice

IN 2017 WGCATCH wrote "There appears to be more issues in compliance and the implementation of the LO than there are in the collection of data itself. Where access is straightforward and the different components can be easily identified then samples are continuing to be collected. However, the transition by means of a partial implementation and the current exemptions based on certain conditions make the interpretation of the samples collected onshore and offshore and the estimation complex. The industry might be recording the different components when necessary, but when the control regulation only requires a vessel to record the weight of discarded species exceeding 50kgs on each fishing event then recorded discard figures are likely less than those recorded by observers. The compilation of these questionnaires has been led by the RCM/RCGs and WGCATCH considers they are the best place to keep a watching brief on the impact of the LO on the sampling programmes. WGCATCH role is more that identifying possible issues and providing advice on the issues and problems encountered, developing ICES WGCATCH REPORT 2017 | 17 methods to assess the quality of the data retrieved and estimates produced. WGCATCH recommends members of all RCGs to fill in the questionnaires on an annual basis."

Example of the questionnaire distributed to the relevant countries

The RCG's will continue to fill in the questonairres and identify potential issues For discussion: Any feedback to the RCG's for future work?

Monitoring the impact of the landing obligation on data collection

Country:	
Completion date :	
Regions	
Overview of Species	
Gears	
Comments	
Overview of metiers on exemptions @national level	

1	*Has the MS sucessfully adapted or implemented their <u>onshore</u> sampling programme to capture all landings catorgies? (including BMS)*	
	Modifed sample sheets	
	Modified databases	
	Sampling procedures	
	If yes - how? If no - why not?	
2	*Has the MS successfully adapted or implemented their <u>offshore</u> sampling programme to capture all catch catorgies? (including BMS)*	
	Modifed sample sheets	
	Modified databases	
	Sampling procedures	
	If yes - how? If no - why not?	
3	*Has there been issues getting access to vessels and all components of the catch and landings (incl. BMS landings)?*	
	Onshore	
	If yes - what? Percieved, annecdotal, measureable?	
	Offshore	
	If yes - what? Percieved, annecdotal, measureable?	

4	*Has the MS commenced the logging of responses when trying to source sampling events/observer trips ?*	
	Onshore	
	If yes - what? Percieved, annecdotal, measureable?	
	Offshore	
	If yes - what? Percieved, annecdotal, measureable? For what time period ?	
	If no - why not?	
5	*Is there any evidence of an effect on the quality of data?*	
	Discard estimates	
	If yes - what? Percieved, annecdotal, measureable?	
	Landings data	
	If yes - what? Percieved, annecdotal, measureable?	
	Control data - Landings data (logbook, sales notes)	

	If yes - what? Percieved, annecdotal, measureable?	
6	*Is there any evidence of a change in fishing behaviour? Technical (fishing gear, sorting processes) and tactical (fishing grounds and seasons)?*	
	If yes - what? Percieved, annecdotal, 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*	
	If yes - what?	
8	*What additional measures has the MS put in place to implement the LO /regional discard plan*	
	NA If yes - what?	
	NS-EA If yes - what?	
	Baltic If yes - what?	
9	*Is or has the MS been involved in Pilot studies concerning the implications of the LO i.e. last haul data, video monitoring, reference fleets*	
	If yes - what?	
10	*Has the LO had any implication on recreational fisheries?*	
	If yes - what?	
11	*Has the MS carried out trials or desk studies on potential choke species?*	

	If yes - what species and areas and provisional results?	
11	*Are MS monitoring de minimis (and if so, how)*	
	If yes - How?	

Appendix II: Overview exemptions

Table II.1: Overview of Survivability and *De minimis* exemptions for the demersal fisheries North Sea and in Union waters of ICES Division IIa (EU 2018/45)

Survivability exemptions				
Defined fishery			Defined ICES Division/Area	Exemption for defined fishery and ICES Division/Area
Pots (FPO)				Norway lobster shall be released whole, immediately and in the area where it has been caught
Bottom trawls (OTB, TBN)	≥70mm meshsize	Species selective grid with bar spacing of max. 35 mm	IIIa	Norway lobster shall be released whole, immediately and in the area where it has been caught
Bottom trawls (OTB, TBN)	≥90mm meshsize	Seltra panel	IIIa	Norway lobster shall be released whole, immediately and in the area where it has been caught
Bottom trawls (OTB, TBN)	≥80mm meshsize	Netgrid selective device	FU6, FU8, FU9 during winter	Norway lobster shall be released whole, immediately and in the area where it has been caught
Otter trawls (OTB)	Cod-end 80-99mm meshsize	Vessel max. length 10m, max. engine power 221 kW, fishing in waters depth of ≤30 m, with limited tow duration of ≤1.30 hours	Within 6nm of the coast of IVc and outside identified nursery areas	Common sole shall be released immediately
Pots & fyke nets (FPO, FYK)				Cod, haddock, whiting, plaice, sole, hake and saithe shall be released immediately and below the sea surface
***De minimis* exemptions**				
Defined fishery			Defined ICES Division/Area	Exemption for defined fishery and ICES Division/Area
Trammel nets & gillnets (GN, GNS, GND, GNC, GTN, GTR, GEN, GNF)			IIIa, IV, Union waters IIa	Discard a quantity of common sole which shall not exceed 3% of the total annual catches of that species
Beam trawl (TBB)	80-119mm meshsize	With increased mesh size in the extension of the beam trawl, Flemish panel	IV	Discard a quantity of common sole below the MCRS which shall not exceed 6% of the total annual catches of that species
Bottom trawls (OTB, OTT, TB, TBN)	80-99mm meshsize		IV, Union waters IIa	Discard a quantity of Norway lobster below MCRS which shall not exceed 2% of the total annual catches of that species
Norway lobster fishery with bottom trawls (OTB, TBN)	≥70mm meshsize	With a species-selective grid with bar spacing of maximum 35 mm	IIIa	Discard a combined quantity of common sole, haddock, whiting, cod and saithe below MCRS, which shall not exceed 4% of the total annual catches of Norway

				lobster, common sole, haddock, whiting and Northern prawn, cod and saithe
North prawn fishery with bottom trawls (OTB)	≥35mm meshsize	With a species selective grid with bar spacing of max. 19 mm, with unblocked fish outlet	IIIa	Discard a combined quantity of common sole, haddock, whiting, cod, plaice and saithe below MCRS, which shall not exceed 1% of the total annual caches of Norway lobster, common sole, haddock, whiting, cod, saithe and plaice and Northern prawn
Mixed fishery for sole, whiting, plaice and species without catch limits with bottom trawls (OTB, OTT, SDC, SSC)	70-99mm meshsize		IVc	Discard a combined quantity of whiting and cod below MCRS, which shall not exceed 6% of the total annual catches of Norway lobster, haddock, sole, Northern prawn, whiting, plaice saithe and cod; the max. amount of cod that may be discarded shall be limited to 2% of those total annual catches
Bottom trawls (OTB, OTT, TBN)	90-119mm meshsize or ≥120 mm meshsize	With Seltra panel (90-199mm meshsize	IIIa	Discard a quantity of whiting below MCRS, up to a max. of 2% of the total annual catches op Nephrops, cod, haddock, whiting, saithe, common sole, plaice and hake

Table II.2: Overview of Survivability and *De minimis* exemptions for certain pelagic fisheries and fisheries for industrial purposes in the North Sea (EU 2018/189 and EU 1395/2014)

Survivability exemptions			
Defined fishery		Defined ICES Division/Area	Exemption for defined fishery and ICES Division/Area
Purse seine fisheries			LO shall not apply to catches of mackerel and herring if: (i) the catch is released before 80% for mackerel fishery, 90% for herring fishery or 80% in mixed fishery, of the purse seine is closed, (ii) the purse seine gear is fitted with a visible buoy clearly marking the limit for the point of retrieval, (iii) the vessel and gear are equipped with an electronic recoding and documenting system when, where and extent to which the purse seine has been hauled for all fishing operations. Further, it is prohibited to release caches of mackerel and herring after the point of retrieval and the surrounded school of fish shall be sampled before its release to estimate the species composition, fish size composition and quantity.
***De minimis* exemptions**			
Defined fishery		Defined ICES Division/Area	Exemption for defined fishery and ICES Division/Area
Pelagic trawlers targeting mackerel, horse mackerel and herring OTM, PTM)	Vessel overall length up to 25 m	IVb and c south of 54 degrees north	Up to a max of 1% of the total annual catches of mackerel, horse mackerel, herring and whiting may be discarded in 2018, 2019 and 2020

Table II.3: Overview of Survivability and *De minimis* exemptions for demersal and deep sea fisheries in North-Western waters (EU 2018/46)

Survivability exemptions				
Defined fishery			Defined ICES Division/Area	Exemption for defined fishery and ICES Division/Area
Pots, Traps or creels (FPO, FIX)			Subareas VI,VII	Survival exemption shall apply to catches of Norway lobster
Otter trawl gears (OTT, OTB, TBS, TBN, TB, PTB, OT, PT, TX)	Cod-end meshsize 80-99mm	Vessel max. length 10m, max. engine power 221 kW, fishing in waters depth of ≤30 m, with limited tow duration of ≤1:30 hours	Within 6nm of the coast of Division VIId and outside identified nursery areas	Survival exemption shall apply to catches of common sole below the MCRS
***De minimis* exemptions**				
Defined fishery			Defined ICES Division/Area	Exemption for defined fishery and ICES Division/Area
Bottom trawls and seines of less than 100 mm (OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, TB, SX, SV, OT, PT, TX) Pelagic trawls (OTM, PTM)			Divisions VIIde	Discard whiting up to 6% of the total annual catches of that species by vessels obliged to land whiting
Bottom trawls and seines of not less than 100 mm (OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, TB, SX, SV, OT, PT, TX) Pelagic trawls (OTM, PTM)			Divisions VIIb-j	Discard whiting up to 6% of the total annual catches of that species by vessels obliged to land whiting
Bottom trawls and seines of less than 100 mm (OTB, SSC, OTT, PTB, SDN, SPR, TBN, TBS, TB, SX, SV, OT, PT, TX)			Subarea VII, except Divisions VIIade	Discard whiting up to 6% of the total annual catches of that species by vessels obliged to land whiting

Pelagic trawls (OTM, PTM)				
Vessels obliged to land Norway lobster and fishing for Norway lobster			Subarea VII	Discard Norway lobster up to 6% of the total annual catches of that species
Vessels obliged to land Norway lobster and fishing for Norway lobster			Subarea VI	Discard Norway lobster up to 2% of the total annual catches of that species
Vessels obliged to land common sole and using trammel and gill nets to catch common sole			Divisions VIIdefg	Discard common sole up to a maximum of 3% of the total annual catches of that species
Vessels obliged to land common sole and using TBB gear	Meshsize 80-119mm	Increased selectivity, such as a large meh extension	Divisions VIIdefg	Discard common sole up to a maximum of 3% of the total annual catches of that species

Table II.4: Overview of Survivability and *De minimis* exemptions for certain pelagic fisheries in North-Western waters (EU 2018/190 and EU 1393/2014)

Survivability exemptions		
Defined fishery	Defined ICES Division/Area	Exemption for defined fishery and ICES Division/Area
Purse seine fisheries		LO shall not apply to catches of mackerel and herring if: (i) the catch is released before 80% for mackerel fishery, 90% for herring fishery or 80% in mixed fishery, of the purse seine is closed, (ii) the purse seine gear is fitted with visible buoys clearly marking the limit for the point of retrieval, (iii) the vessel and gear are equipped with an electronic recoding and documenting system when, where and extent to which the purse seine has been hauled for all fishing operations. Further, it is prohibited to release caches of mackerel and herring after the point of retrieval and the surrounded school of fish shall be sampled before its release to estimate the species composition, fish size composition and quantity.
***De minimis* exemptions**		
Defined fishery	Defined ICES Division/Area	Exemption for defined fishery and ICES Division/Area
Industrial pelagic trawlers targeting blue whiting and processing it onboard to obtain surimi base	Vb, VI, VII	Discard blue whiting up to a max. of 6% in 2018, and 5% in 2019 and 2020 of the total annual catches of blue whiting
Albacore tuna directed fisheries using midwater pair trawls (PTM)	VII	Discard albacore tuna up to a max. of 6% in 2018, and 5% in 2019 and 2020 of the total annual catches of albacore tuna
Pelagic trawlers using midwater trawl targeting mackerel, horse mackerel and herring OTM, PTM) Vessel overall length up to 25 m	VIId	Discard mackerel, horse mackerel and herring and whiting up to a max. of 1% 2018, 2019 and 2020 of the total annual catches of mackerel, horse mackerel and herring

Table II.5: Overview of Survivability and *De minimis* exemptions for certain demersal fisheries in South-Western waters (EU 2018/44, 2016/2374)

Survivability exemptions		
Defined fishery	Defined ICES Division/Area	Exemption for defined fishery and ICES Division/Area
Trawls (OTB, OTT, PTB, TBN, TBS, TB, OT, PT, TX)	VII, IX	Survival exemption shall apply Norway lobster in 2018
***De minimis* exemptions**		
Defined fishery	Defined ICES Division/Area	Exemption for defined fishery and ICES Division/Area
Vessels using trawls and seins to catch hake (OTT, OTB, PTB, OT, PT, TBN, TBS, TX, SSC, SPR, TB, SDN, SX, SV)	VIII, IX	Discard hake up to a maximum of 6% in 2018 of the total annual catches of this species
Vessels using beam and bottom trawls targeting common sole (OTB, OTT, PTB, TBN, TBS, TBB, OT, PT, TX)	VIIIab	Discard common sole up to a max. of 5% of the total annual catches of this species
Vessels using trammel nets and gillnets (GNS, GN, GND, GNC, GTN, GTR, GEN)	VIIIab	Discard common sole up to a max. of 3% of the total annual catches of this species

Appendix III: A **suggested and modifieddata sheet and protocols to EFCA for last haul data from the Baltic. The RCG has come with some additional suggestions for the protocol for making even more use of the sampled information. In the present protocol from EFCA there is no information regarding PETS**

BALTIC SEA - LAST HAUL DATA FROM INSPECTION

National Inspection	
FISHING VESSEL DATA	
FLAG STATE	
EXTERNAL MARK	
NAME	
CFR	
IRCS	
INSPECTION DATA	
DATE	
TIME (start and end of inspection, UTC)	
POSITION (N/S DD.MM.mm - E/W DD.MM.mm)	
ICES AREA and SUB AREA *(e.g. 3C22)*	
GEAR TYPE *(according to Annex XI, 404/2011)*	
MESH SIZE (measured by control)	
ESCAPE PANEL TYPE *(trawl only)*	
GENERAL INSPECTION REMARKS	
Expected date, time and port of landing:	

CATCH COMPOSITION *(Last observed haul only)*

Last haul catch *(live weight in kg):*

Quantity sampled *(live weight in kg):*

SPECIES	***Quantities***	
HER *(live weight in kg)*		
SPR *(live weight in kg)*		
	Above MCRS	***Below MCRS***
COD *(live weight in kg)*		
PLE *(live weight in kg)*		
SAL *(individuals)*		
	Retained	***Discarded***
TRS *(live weight in kg)*		
OTH *(live weight in kg, specify species)*		

Has the last haul been checked for PETS	**Yes**	**No**

LAST HAUL REMARKS (comments about size distribution, reason for discards, etc.)

INSPECTION FOR HIGH GRADING OF COD *(live weight in kg)*				
Size 5 *(≥ 35 cm < 1,17*	Size 4 *(≥ 1,17 kg <*	Size 3 *(≥ 2,34 kg <*	Size 2 *(≥ 4,68 kg <*	Size 1 *(≥ 8,19 kg)*

Recording of discards from last hauls inspected in Baltic Sea EFCA General Guidance on Procedures, modified with additional suggestions from the RCG NSEA

GENERAL INSPECTION REMARKS	Enter the amount of BMS COD and PLE on board before the last haul from the logbook

For last haul: *General points*	○ Fish to be **discarded and below minimum size (MS)** should be **kept separate** for estimation by inspectors; ○ **Estimates** in **kg for all species** apart from **salmon in individuals**; ○ **Develop an procedure** to take a **sufficiently large sample** to enable an accurate estimation of the observed haul; ○ Any additional information that is relevant to the estimation may be provided in **remarks** section of the data collection form; ○ **Data** recording: see **annex**.

Gear Type[1]	**Recommended Sampling Strategy**
Trawl (OT, PT, SDN)	○ Where possible **observe the entire** fish sorting **procedure**; ○ If large catches prevent this, **take** a sufficiently large sample and **note**: - Quantities of **catch retained** - **Quantities of discarded** and **fish below MS** estimated.
Set Nets (GN, GT etc.)	○ Where possible **observe** hauling of at least one set of nets; ○ Note length of set(s) observed; ○ Note quantities of **catch retained**, **discards** and **fish below MS.**
Longlines (LL etc.)	○ Where possible **observe** of at least one complete longline set; ○ Note **number of hooks** hauled; ○ Note quantities of **catch retained**, **discarded** and **fish below MS**.

Biology	**Length distribution (additional suggestion from RCG NSEA)**
Set Nets and Longlines (GN, GT, LL etc.)	○ Where possible take a length distribution of the total catch (~200 fish/ species); ○ Where possible take a subsample (1 fish/ cm) from XX species for the scientist.

[1] Traps excluded from the project. Pelagic fisheries should not be prioritised given their scale / complexities.

Discard	Mammals/ Birds (PETS) Additional suggestions from RCG NSEA
Set Nets (GN, GT etc.)	○ **Observe when the gillnets are takin in**; - If any mammals or birds are caught in the net register the numbers of individuals by species (if possible) **in the remarks box.** - Make a **tick mark in the scheme** if the catch have been checked for PETS

Additional summary information on desk studies on choke and *de minimis* in the North Sea

A very detailed study has been conducted by the commission in 2018 and the main part of the following text comes from this report: Ulrich C 2018, . Research for PECH Committee – Landing Obligation and Choke Species in Multispecies and mixed Fisheries – The North Sea

Definition: A choke species is a species for which the available quota is exhausted (long) before the quotas are exhausted of (some of) the other species that are caught together in a (mixed) fishery (Zimmermann et al., 2015).

This study investigated several aspects of the landing obligation and discards problems but chapter 3 is mainly on the choke species chapter 4 on de Minimis and exemptions and main findings and conclusions are highlighted below.

KEY FINDINGS

- The landing obligation has triggered the need to characterise the various potential choke situations and assess the factors causing them, in order to identify the most appropriate mitigation strategies.
- For the same area different choke categories may be experienced at EU, Member State, Fleet and Individual vessel levels.
- Presently in the North Sea the most serious risks of choke situations for the main commercial stocks are estimated to be with Northern hake in trawl fisheries and North Sea plaice in small-meshed beam trawl fisheries, but for very different reasons. Issues with hake are linked with the historical relative stability key not being aligned with biological changes in the ecosystem, not least in relation to climate change. Issues with plaice are linked to the large amount of small plaice caught in the sole fishery.
- The potential choke effect of bycatch stocks has been less well studied so far.
- The discussion on possible chokes is still speculative, as these will only be actually observed under conditions of full enforcement of the landing obligation. No such situation have yet been reported by Member States.

Choke species

Levels of choke issues

Choke species situations can be derived by various types of situations, with different characterise to their causes and responsibility. It has been recognized that choke issues can potentially occur at various levels, depending whether the shortage of quota is due to a poor status of a stock or a poor distribution of fishing rights. The Advisory Councils (NSAC, 2017a) has developed a system for categorizing choke problems as follows:

Category 1: Sufficient quota at Member State level—choke is due to distribution within the Member State such that a region, a fleet segment or an individual vessel does not have enough but this can be resolved by the Member State itself.

Category 2: Sufficient quota at EU level, but insufficient quota at MS level—choke is due to a mis-match of catches and the distribution of quotas between Member States and can theoretically be resolved between themselves in a regional context.

Category 3: Insufficient quota at EU level—choke is due to insufficient quota within the relevant sea basin to cover present catches or catch levels that can be realistically reduced, resulting in a total stop of fishing for a Member State or Member States.

Category 4: Economic choking may occur at the vessel level when there is a considerable bycatch of a low value species and the boat is filled with fish that will not deliver a profit.

Initial considerations on quotas prior to landing obligation

The landing obligation has been gradual phased-in for the North Sea demersal fisheries. This has resulted in higher focus on the species first to be implemented in the landing obligation and therefore the species that are in focus to day a different from the ones in focus 1-2 years ago.

Fishery	Cod	Haddock	Saithe	Whiting	N. lobster	Sole	Plaice	N. prawn	Hake
TR1	2017	2016	2016 /2018	2017	2017	2017	2016	2016	2019
TR2	2018	2016	2018	2018	2016	2016	2019	2016	2019
GN/GT	2017	2017	2018	2017	2017	2016	2019	2016	2019
LL	2017	2017	2018	2017	2017	2017	2019	2016	2016
BT1	2018	2017	2018	2017	2017	2017	2017	2016	2019
BT2	2018	2017	2018	2018	2017	2016	2019	2016	2019
TRAPS	2018	2017	2018	2017	2016	2017	2019	2016	2019
Trawl 32-69 mm	2018	2017	2018	2017	2017	2017	2019	2016	2019

Prior to the landing obligation (STECF, 2014) investigated for which species and stocks each Member State had catches (including discards) in 2012 in excess of its initial and final quota (including swaps/banking etc.). Landings in excess of initial quota but not of final quota illustrated the dependency of MS on swaps to cover their fisheries, while catches in excess of final quota illustrated potential risks of choke species at Member State level. STECF concluded at this time that these preliminary analyses demonstrated that for all Member States and for a number of primary and secondary (by-catch) stocks, catches in 2012 were well in excess of the available quota, and for some stocks, this was the case even after quota swaps and banking and borrowing. That means that while in many cases the landings were aligned with the landings quotas, TACs increases (topups) might not necessarily be sufficient to cover the discards of all Member States.

In March 2017, the NSAC conducted an updated analysis of this, comparing available quota with 2015 landings and discards data for the main species (NSAC, 2017b). The aim was to classify the stocks according to the choke categories 1 to 4 above. The analysis was hampered by concerns on the validity of the discard estimates. The outcomes of this analysis was used to advice the Scheveningen Group who agreed to postpone the phasing-in of the landing obligation for North Sea plaice and Kattegat cod in some fisheries to 2019.

Northern hake is not considered to be a "species defining the fisheries" in the article 15 of (European Parliament and Council of the European Union, 2013), and is only to be phased-in next year in 2019. Hake was thus not included in this NSAC study. However, potential issues linked to the recovery of the stock and its expansion in northern waters have been flagged, and generalized quota shortage for that stock across the North Sea was noted by the NSAC in its following advice (NSAC, 2017a).

Main choke species in the North Sea demersal fisheries in 2019

Most available analyses of potential choke species issues have dealt with the main commercial stocks, and less with the effect of the secondary species that will enter the landing obligation in 2019. Out of the information gathered here, the most important cases appear to be:

- **Northern hake in TR1/TR2 fisheries**, because of its recent expansion in the North Sea where most Member States have only small historical quota shares;
- **North Sea plaice in BT2 fisheries**, because of the very large volume of undersized plaice caught in the sole targeted fishery;
- **North Sea whiting and Kattegat cod** in all fisheries, because of their high discards rates.

Noticeably, the two first choke cases are linked to stocks that are in a very good state, with high biomass levels and fishing mortality at Fmsy. For these two cases, choke issues are thus not of biological nature. But the issues for these two stocks are also diametrically different. For plaice, the problem is technical and economic; for hake, the problem is political, linked to the historical relative stability key being no more aligned with the spatial distribution of fish stocks in relation to climate change.

Exemptions for landing obligation

In the CFP (2013), article 15 is not only referring to the fisheries were the landing obligation is referring to but also to the situations were exemptions can be applied for. Three different scenarios can be used for applying for exemptions: The landing obligation referred to in paragraph 1 shall not apply to:

a) species in respect of which fishing is prohibited and which are identified as such in a Union legal act adopted in the area of the CFP;

b) species for which scientific evidence demonstrates high survival rates, taking into account the characteristics of the gear, of the fishing practices and of the ecosystem;

c) catches falling under de minimis exemptions.

Ahead of the final year of full implementation of the Landing Obligation in 2019 STECF (2018) analysed the number of exemptions proposed. The listed exemptions increased from just over 40 for 2018 to nearly 70 for 2019. STECF (2018) combined exemptions across the regions and assessed them, which meant that the total number of proposed and assessed exemptions across all regions (NS, NWW, SWW, MED) was 58 (Table 1). Presently there are no exemptions for high survival in the Baltic Sea, although scientific studies are ongoing for exemptions for high survival for plaice.

Table 1. Number of recommendations by type and region evaluated by STECF (2018). Recommendations evaluated

Region	*de minimis*	high survivability	Total
North Sea	8	8	16
North Western Waters	5	10	15
South Western Waters	10	3	13
Mediterranean (consolidated)	8	6	14
Total	31	27	58

High survivability exemptions

In the North Sea several high survival exemptions has been applied for:

Norway lobster

The survivability exemption applies to the following catches of Norway lobster:

- Catches with pots (FPO);
- Catches in ICES Division IIIa with bottom trawls (OTB, TBN) with a mesh size of at least 70 mm equipped with a species selective grid with bar spacing of maximum 35 mm;
- Catches in ICES Division IIIa with bottom trawls (OTB, TBN) with a mesh size of at least 90 mm equipped with a seltra panel;
- In winter months (October to March), catches in the functional units Farn Deeps (FU6), Firth of Forth (FU8) and Moray Firth (FU9) with bottom trawls (OTB, TBN) with a mesh size of at least 80 mm equipped with a netgrid selectivity device.

Common sole

The survivability exemption applies to TR2 catches of common sole below MCRS made within 6 nautical miles of the coast in ICES area IVc and outside identified nursery areas. The exemption only applies to small vessels (<10 metres length, <221 kW engine power), when fishing in waters with a depth of 30 metres or less and with limited tow durations of no more than 1.30 hours.

Fish by-catch in pots and fyke nets

The survivability exemption applies to catches of cod, haddock, whiting, plaice, sole, hake and saithe with pots and fyke nets (FPO, FYK).

De Minimis exemptions

The following *de Minimis* derogations apply:

a) in the fisheries by vessels using trammel nets and gill nets in ICES Division IIIa, ICES Subarea IV and Union waters of ICES Division IIa: a quantity of common sole which shall not exceed 3 % of the total annual catches of that species;

b) in the fisheries by vessels using beam trawl BT2 with Flemish panel device, in ICES Subarea IV: a quantity of common sole below MCRS, which shall not exceed 6 % of the total annual catches of that species;

c) in the fisheries by vessels using TR2 in ICES Subarea IV and Union waters of ICES Division IIa: a quantity of Norway lobster below MCRS, which shall not exceed 2 % of the total annual catches of that species;

d) in the fishery for Norway lobster by vessels using bottom trawls equipped with a species-selective grid with bar spacing of maximum 35 mm in ICES Division IIIa: a combined quantity of common sole, haddock, whiting, cod and saithe below MCRS, which shall not exceed 4 % of the total annual catches of Norway lobster, common sole, haddock, whiting and Northern prawn, cod and saithe;

e) in the fishery for Northern prawn by vessels using bottom trawls (OTB) with a mesh size equal to or larger than 35 mm equipped with a species selective grid with bar spacing of maximum 19 mm, with unblocked fish outlet, in ICES Division IIIa: a combined quantity of common sole, haddock, whiting, cod, plaice and saithe below MCRS, which shall not exceed 1 % of the total annual catches of Norway lobster, common sole, haddock, whiting, cod, saithe and plaice and Northern prawn;

f) in the mixed fishery for sole, whiting, plaice and species without catch limits by vessels using bottom trawls (OTB, OTT, SDN, SSC) of mesh size 70-99 mm in ICES

Division IVc: a combined quantity of whiting and cod below MCRS, which shall not exceed 6 % of the total annual catches of Norway lobster, haddock, sole, Northern prawn, whiting, plaice, saithe and cod; the maximum amount of cod that may be discarded shall be limited to 2 % of those total annual catches;

g) in the fisheries by vessels using bottom trawls (OTB, OTT, TBN) with a mesh size of 90-119 mm, equipped with Seltra panel, or with a mesh size of 120 mm and above in ICES Division IIIa: a quantity of whiting below MCRS, up to a maximum of 2 % of the total annual catches of Nephrops, cod, haddock, whiting, saithe, common sole, plaice and hake.

Monitoring of *de Minimis*

In a STECF earlier report (2017) STECF highlights in 2018 the "lack of [required] reporting by vessel operators of fish discarded under exemptions…". STECF stress again (2018) the need to improve the collection of catch documentation data. If the data situation does not improve and the true quantities being caught as reported do not reflect the actual removals, it will likely have a significant impact on the quality of scientific advice and may compromise the achievement of the MSY objective. As STECF PLEN 18-01 pointed out, innovative monitoring measures such as CCTV and Remote Electronic Monitoring (REM) have been applied in pilot studies and could be a more effective way to enforce the landing obligation (STECF EWG 13-23).

TAC removal

Removing TACs from annual TAC regulations so that associated stocks are removed from the landing obligation has been put forward by several stakeholders as a way to deal with problematic stocks, i.e. where discarding are high due to low commercial value and/or where quotas are insufficient to cover catches. In 2017 the EC proposed, and Council agreed to delete the combined TAC for dab and flounder in the North Sea, after that ICES had assessed the sustainability risk of that removal to these two stocks to be low11. Several additional TACs removals are currently under discussion.

Reference

Ulrich C 2018, . Research for PECH Committee – Landing Obligation and Choke Species in Multispecies and mixed Fisheries – The North Sea, European Parliament, Policy Department for Structual and Cohesion Policies, Brussels.

Scientific, Technical and Economic Committee for Fisheries (STECF) – Evaluation of the landing obligation joint recommendations (STECF-18-06). Publications Office of the European Union, Luxembourg, 2018, ISBN XXXXX, doi:XXXXXX, JRCXXX

Scientific, Technical and Economic Committee for Fisheries (STECF) – 57th Plenary Meeting Report (PLEN-18-01) 2018; Publications Office of the European Union, Luxembourg; EUR XXXXX EN; doi:XXXXXXXXXX

Scientific, Technical and Economic Committee for Fisheries (STECF) – 56th Plenary Meeting Report (PLEN-17-01) 2017; Publications Office of the European Union, Luxembourg; EUR XXXXX EN; doi:XXXXXXXXXX

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Annex 14. Diadromous Subgroup Report

ToR 1 Review progress since last year

ToR 1.3: Consider feedback from End-Users (ICES EGs) to the recommendations from RCM Baltic 2017 (elaborated as points 1-5 below), and follow up accordingly.

At the RCG Baltic meeting in 2017, the Diadromous Sub Group (RCG) directed recommendations to the ICES Expert Groups WGNAS (Working Group on North Atlantic Salmon) and WGBAST (Working Group on Baltic Salmon and Trout) and asked for a response regarding end-user needs for stock assessment. A response was delivered from WGBAST (Annex 1). Although the feedback did not cover all information/data needs, it highlighted some important issues about the process of selecting Index Rivers and a brief evaluation of the need to coordinate parts of the data collection. Due to heavy workload with a full assessment in 2017, feedback was not delivered by WGNAS although the recommendations were discussed at the working group meeting.
To cover the total data/information needs for stock assessment, the RCG has elaborated the recommendations from 2017 into the following specific points that should be addressed by ICES EGs on diadromous fish before the RCG meeting in 2019:

1. For commercial fisheries in Union waters, advise on the selection of stocks for which variables (sex-ratio, maturity, fecundity) have to be collected in support of scientific advice, and the temporal frequency and sampling level of data collection.
2. For commercial fisheries in fresh-, transitional-, and marine waters specify stock-related variables to be collected for individual specimens, on age, length, weight, sex, maturity and fecundity, by life stage. Noting that the requirement to collect annual catch quantities by age class or life stage is obligatory.
3. For recreational fisheries in all waters, advise on the end-user needs for age or other biological data, noting the requirement to collect annual volume (numbers and weights or length) of catches and releases is obligatory.
4. Define the rivers to be monitored for salmon at regional level, noting that 'rivers' in the Legal Text is interpreted to represent 'water bodies' (STECF 2017). In addition the criteria for river selection should be defined.
5. Coordinate, at regional level, the selection of stocks from which salmon variables (parr, smolts, ascending adults) have to be collected, and advise on temporal frequency (annual or not) of the collection of variables for salmon.

Based on the elaborated recommendations above, the RCGhas produced a first draft of a list of data needed to assess status and provide scientific advice for salmon stocks in the North Atlantic and the Baltic Sea (see table 1). The preliminary compilation needs input to give a complete picture of the data requirements and is therefore directed to WGNAS and WGBAST for their feedback to the RCG meeting in 2019. The two EGs are encouraged to consider in their responses also quality aspects and possible needs for coordination of the data collection between countries, including standardization of methodologies (e.g. age reading, electrofishing and methods to estimate smolt abundance).

The new EU data collection regulation covers to some extent data collection on sea trout in the Baltic Sea, and the feedback from WGBAST should therefore ideally include also data needs for this species. However, there is currently no analytical assessment carried out for sea trout in the Baltic Sea because of a lack of suitable methodologies. ICES working group WGTRUTTA was established in 2017 to develop assessment models and establish biological reference points for anadromous trout. Until this developmental work has been finalized, it is not possible to identify in detail which data will be needed in the future to assess status of sea trout populations in the Baltic Sea or elsewhere. The RCG therefore suggests postponing the compilation of data requirements for sea trout until WGTRUTTA has finalized its three year term and an assessment model has been agreed upon.

The group also discussed the issue of data collection on salmon stocks that have been extirpated and currently part of a reintroduction programme. The group agreed that biological data on such stocks, although very useful in monitoring the success of the programme and thus the MS, is not of great use in any international or regional stock assessment. It therefore should not be necessary to collect data on such stocks for assessment purposes. At a time when stocks return to a self-sustaining state data collection for use in international stock assessment should resume.

The RCG recommends WGNAS and WGBAST to consider the list of possible data required for Atlantic salmon stock assessments in this report (Table 1) and to report back to DSGRCG in 2019 on this list with suggestions for changes and/or additions.

The RCG recommends WGNAS and WGBAST define the rivers to be monitored and river selection criteria for Atlantic salmon at regional level, noting that 'rivers' in the Legal Text is interpreted to represent 'water bodies' (STECF 2017).

The RCG recommends WGNAS and WGBAST suggest a selection of stocks from which salmon variables (juveniles, smolts, ascending adults) have to be collected, and advise on temporal frequency (annual or not) and sampling level of the collection of variables for salmon.

Table 1: list of suggested data needs to assess status and provide scientific advice for salmon stocks in the North Atlantic and the Baltic Sea

Data requirements for Atlantic salmon stock assessment in the Baltic		Assessment requirements						
Type of data	**Parameter**	**Currently used**	**Planned to be included in near future**	**Potentially useful**	**Comment**			
Commercial Marine Fisheries data	Fishing effort	x						
	Landings	x						
	Discards (seal damage and release of wild fish)	x						
Recreational Marine Fisheries data	Fishing effort		x					
	Landings		x					
	Catch and release		x					
Freshwater Fisheries data	Fishing effort			x				
	Catches	x						
	Catch and release		x					
	Broodstock fishery	x						
Biological data	Scale sampling of fisheries to determine wild/reared proportions	x						
	Scale sampling of fisheries to determine year class strength			x				
	Genetic sampling of commercial mixed stock fisheries		x					
	Parr densities by age group from all wild rivers	x						
	Counts of ascending adults on full and partial index rivers	x						
	Size and sea-age data of ascending adults on index rivers	x						
	Parr size by age group on index rivers			x	Will be used to develop the river model			
	Stocking statistics	x			Will be used to develop the river model			
	Smolt counts on full and partial index rivers	x						
	Smolt size and age on full and partial index rivers		x		Will be used to develop the river model			
	M74 monitoring including thiamine analysis	x						
	Health status monitoring of wild fish			x				
Physical data	Sea Surface Temperature (SST)	x						

Data requirements for Atlantic salmon stock assessment in the Atlantic								
Type of data	**Parameter**	**Currently used**	**Planned to be included in near future**	**Potentially useful**	**Comment**			
All fisheries exploiting North Atlantic salmon	Fishing effort	x						
	Number and weight of all salmon caught separated by fisheries, location, age class	x						
	Number of salmon released in recreational fisheries	x						
	Weight of ranched salmon caught	x						
Mixed salmon stock fisheries	Genetic assignment to country/region/river of origin of adult salmon at W. Greenland at least once		x					
Biological data	Counts of returning adults for at least one river stock in 30, as agreed by ICES	x						
	Sea-age composition of returning adults (using scales)	x						
	Sex ratios of returning adults by sea age at a national/regional level every 5 years	x			Should be included in the new DC-MAP			
	Annual counts of ascending adults on index rivers, as agreed by ICES			x				
	Annual smolts counts on index rivers, as agreed by ICES	x						
	Annual age composition of smolts (using scales)	x						
	Surveys for juvenile salmonids to assess stock compliance with CL and WFD			x				
	Fecundity of returning adults by sea age at a national/regional level every 5 years	x			Should be included in the new DC-MAP			
	Annual fry/parr densities on index rivers, as agreed by ICES			x				
	Egg to smolt survival timeseries on index rivers			x				
	Annual estimates of sex ratios of adults on index rivers			x				
	Annual estimates of sex ratios of smolts on index rivers			x				
	Disease monitoring in wild fish (e.g. BKD, ISA, Gyrodactylus, salmon louse, etc.)			x				
	Modelling the density dependence in the freshwater phase (this is new)		x					
	Mid point of smolt migration period	x						

1.2. Develop regional work/sampling plans for data collection and quality assurance

The RCG suggested that development of regional work and sampling plans should be undertaken at a point where there is clarity on what data needs to be collected, and at which frequency and not before feedback from the end-users has been received.

Quality assurance is closely linked to data collection. At the meeting the group discussed in plenary with the RCG NSEA on possibly working with WGBIOP (Working Group on Biological Parameters) on scale reading QA by WGBAST and WGNAS. In addition the group discussed the merit of intercalibration of electrofishing methods in the Baltic as this data is used for international stock assessment in contrast to the Atlantic area. The group however agreed that it would again be the end users of the data who should be consulted on QA of stock assessment data.

The RSG recommends WGBAST and WGNAS to comment on current quality assurance in their data, and recommend actions to improve QA in future.

1.4. Propose solutions to any of the difficulties found in completing National Workplan and Annual Report submissions in 2017/2018.

The RCG was not aware of any specifics regarding difficulties found in completing National Workplan and Annual Report submissions.

ToR 2 Review data transmissions

2.2. Report on compliance for any Salmon & sea trout data calls

On the last day of the RCG meeting (September 6th 2018) ICES representative Anna Cooper informed the RCG that a data call will be announced for Atlantic salmon for WGNAS shortly. At this point it was not yet clear if this was to be an annual data call or a data call for a benchmark. The chair of RCG 'salmonids' (Dennis Ensing, UK (NI)) was asked to assist in writing the data call, as was the WGNAS chair (Martha Robertson, Canada).
The RCG is supportive of this data call for Atlantic salmon.

ToR 3 RDB development

3.2. Review RDBES developments

ICES developed a new database named Regional Database and Estimation System (RDBES, see RBDES DATA MODEL doc. V.1.15) that is supposed to replace both the current RDB and InterCatch systems and provide a single platform for countries to produce statistical estimates of quantities of interest (such as discards and age or length distributions) which will then be used as inputs for assessment working groups.

General aims of the RDBES are:

1. To ensure that data can be made available for the coordination of regional fisheries data sampling plans, in particular for the EU DC-MAP 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 increase the data quality, documentation of data and ensuring of approved estimation methods are used,
4. To serve and facilitate the production of fisheries management advice and status reports,
5. To increase the awareness of fisheries data collected by the users of the RDBES and the overall usage of these data.

The RDBES data model should allow a variety of different estimation techniques to be used including the COST functions that make use of Age-Length keys, ratio estimators, and unbiased designed based estimations. Future workshops will be held to further test and develop how these estimation techniques can be used with the new model and the model adjusted if needed.
The RDBES data model should be seen as part of the movements towards:

- Statistically Sound Sampling Schemes (4S),
- Greater regional coordination,
- Transparent Assessment Framework (TAF),
- Improved estimates to ICES assessments.

Whilst the RDBES data model is designed to hold 4S data it will also be able to store data that is not sampled in a statistical manner – this is important so that data from current non- statistical programmes can be uploaded and historical data can also be stored. However, in doing so, the new RDBES data model flags those data thus allowing their appropriate interpretation during estimation.
The most important step in populating the RDBES data model is that you must first specify the design of your sampling programmes. This is because, contrary to the RDB, there is not a single set of tables that everyone must populate and upload: With a few exceptions, the tables that need to be populated and uploaded depend on the specific sampling design(s) each country used.

The RCG identified the following salmonid-related end users who could benefit from its application:

- WGNAS
- WGBAST
- WGTRUTTA
- National bodies within the EU jurisdictions
- other groups

The Subgroup considered the potential merits of the database for such end users, notably, that it may:

- act as a central repository for validated catch, stock and biological data;
- act as the primary active data resource for end users involved in stock assessments;
- mitigate for information loss as membership of assessment groups change; and
- guide standardization of data formats used and increase the informed coordination of future sampling approaches between contributors within species areas.

In addition, the RCG noted that the database can be tailored to species-specific end user needs.
Therefore, the RSG recommends that potential end users should be encouraged to consider adopting the RDBES database as their primary data resource.

The RCG noted that current awareness of the database is limited among potential end users. Therefore, the RCG suggests that a formal approach to end-user groups should be made by the RCG Subgroup 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.

3.3. Review any other developments in Salmon & sea trout data bases

Within a recent "benchmark process" WGBAST initiated work to transfer catch data from commercial salmon sea fisheries into InterCatch (database hosted by ICES). For various reasons that process could not be completely finalized, but the plan is to continue this work within the near future. Discussions are also ongoing to allow inclusion of recreational salmon catch statistics (from both sea and rivers)

Tor 4 Next steps and actions

4.1. Elect chairs and propose next venue(s).

The RCG requested the members to consider standing for the election of chair of the RCG.Subgroup Diadromous Species. Any member wishing to do so should make their name known to the current co-chairs Alan Walker and Dennis Ensing. The election for new chair(s) will be held during the RCG 'eel' meeting in Kavala, Greece, September 18th-20th 2018. The group was of the opinion it would be best if the was chair by two chairs, as it is currently, one with a European eel background, and one with a migratory salmonid background.

In addition the subgroup suggests that from next year the RCG should meet in a single meeting, with both eel and salmon/sea trout experts present. This might put some constraints on the number of participants as it is not known at this time if the facilities at the next meeting are sufficient for a large group.

Considering the initial idea that the RCG should rotate its meetings with the meetings of the relevant RCGs the group suggest it should meet in 2019 at the RCG Atlantic.

4.2. Consider Rules and Procedures for the sub-group.

The Subgroup briefly discussed this in plenary with RCG NSEA. As the Diadromous fish Sub Group is part of an RCG the Rules and Procedures of RCGs already apply to the DSG and do not need any further discussion or formal adoption.

To facilitate a better understanding of the unique issues in data collection related to diadromous fish **the RCG recommends that a representative of the RCG should be present at the Liaison Meeting between the RCGs and STECF.**

Recommendations from the RCG

Recommendation and Question for ICES Expert Groups **WBAST** and **WGNAS** to address

Recommendations for WGBAST and WGNAS
The RCG recommends WGNAS and WGBAST to consider the list of possible data required for Atlantic salmon stock assessments in the 2018 RCG report and to report back to RCG in 2019 on this list with suggestions for changes and/or additions.
The RCG recommends WGNAS and WGBAST define the rivers to be monitored and river selection criteria for Atlantic salmon at regional level, noting that 'rivers' in the Legal Text is interpreted to represent 'water bodies' (STECF 2017).
The RCG recommends WGNAS and WGBAST suggest a selection of stocks from which salmon variables (juveniles, smolts, ascending adults) have to be collected, and advise on temporal frequency (annual or not) and sampling level of the collection of variables for salmon.
The RCG recommends WGBAST and WGNAS to comment on current quality assurance in their data, and recommend actions to improve QA in future.
The RCG recommends that WGBAST and WGNAS should be encouraged to consider adopting the RDBES database as their primary data resource.

Other recommendations

The RCG recommends that a representative of the RCG should be present at the Liaison Meeting between the RCGs and STECF

Response from WGBAST to RCG 2017 Recommendations.

COMMENTS ON RECOMMENDATIONS FROM THE "PAN-REGIONAL DIADROMOUS FISH RCG"

At the Regional Co-ordination Group Meeting for the Baltic Sea region (RCG Baltic) 2017, the following recommendations were directed to WBAST from the diadromous species subgroup (RCG):

Recommendations for WGBAST
1. WGBAST to consider and report any benefits to Atlantic salmon and sea trout assessment of regional coordination of data collection in the Baltic.
2. 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. WGBAST to work out the optimal approach for selecting the appropriate index rivers in the Baltic

Below follow comments from WGBAST on these recommendations. Note that since data collection for sea trout within EU-MAP is presently restricted to commercial and recreational fishery statistics, focus is mainly on salmon.

"WGBAST to consider and report any benefits to Atlantic salmon and sea trout assessment of regional coordination of data collection in the Baltic."

- A large portion of the data needed for stock assessment of Baltic salmon (and sea trout) is collected in fresh water (parr densities, smolt and spawner abundance, river catch statistics). This work is carried out on the national level (with EU-MAP funding). Regional coordination is needed to ensure that the data collected is comparable, of similar/high quality, and representative for the stocks (i.e. rivers) regardless of geographical location. As an example of the need for further coordination, number of sites electrofished every year varies considerably among regions and rivers/streams for both salmon and trout.
- Results from scale reading is used to "feed" the WGBAST assessment model with empirical information on relative abundance of wild and hatchery reared salmon in offshore catches from the Baltic Main Basin. Regional coordination is necessary to collect this type of data because (1) several MS are involved in the Main Basin fisheries, and (2) scales are partly analyzed in other countries than where collected.
- The commercial and recreational Baltic Sea salmon and sea trout fisheries (offshore and coastal) to varying degrees target mixtures of wild and reared stocks with various status and productivity. For reliable and precise assessment, proper information on stock specific catches is needed. Since several years, salmon scale samples from the Main Basin, Gulf of Bothnia and Gulf of Finland have been analyzed genetically and used to estimate stock composition. Although yet not directly included in the assessment model, genetic results have been used as valuable independent information for various comparisons and evaluations. Regional coordination of genetic mixed-stock analyses is necessary because (1) during their feeding and spawning migrations, Baltic salmon are exploited in multiple off-shore and coastal fisheries in several countries, (2) samples collected are to a large extent genetically and statistically analyzed in another country than where collected, and (3) to assure that all raw data produced are fully comparable. For sea trout, there is general lack of information on stock composition in coastal commercial and recreational catches and no systematic, regionally coordinated data collection is presently ongoing.
- An increasing proportion of Baltic salmon and sea trout catches are taken by recreational fisheries. Even though collection of recreational fisheries data needs to consider country-specific characteristics such as different legislation and fishing methods, better coordination

and harmonization of data collection between countries may be beneficial to provide robust data in the most efficient manner. This is particularly the case for the salmon trolling fishery in the Main Basin, where recreational fishers from multiple countries fish with similar methods on the same mixed stock.

- In future years, additional data collection within the Baltic could also be in need of regional coordination. For example, due to lack of data describing salmon year-class strength at sea, a weakness of the current assessment is to predict short term fluctuations in annual spawning-run strength. Internationally coordinated collection of data on salmon year-class strengths could be useful to inform the assessment model, but this option still needs to be evaluated by WGBAST. Likewise, adding data on variables that have been shown to affect Baltic salmon survival (e.g. temperature and prey abundance) could improve the stock assessment.

"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."

- Within a recent "benchmark process" WGBAST initiated work to transfer **catch data** from commercial salmon sea fisheries into InterCatch (database hosted by ICES). For various reasons that process could not be completely finalized, but the plan is to continue this work within the near future. Discussions are also ongoing to allow inclusion of recreational salmon catch statistics (from both sea and rivers).
- When it comes to **biological data** for salmon stock assessment, this is mainly collected in fresh water on the national level (i.e. data on parr, smolts and returning spawners). At present, these data are kept in separate data bases at the national laboratories involved in the collection. Although WGBAST recognizes the importance of quality assured and standardized data bases, it is noted that the biological salmon data collected in fresh water is largely heterogeneous, and it can therefore not easily be merged into a single common data base (on the national or international level). Furthermore, salmon data from freshwater differs fundamentally from marine data in terms of methods for collection and presentation. Therefore, it is not obvious that incorporation of biological salmon data into RDB is possible or motivated, given the large effort that will likely be needed.

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

- Already in 1999, the former International Baltic Sea Fishery Commission (IBSFC) adopted a list of Index Rivers to be established as part of the IBSFC Salmon Action Plan; in total, twelve such rivers were appointed, four in Gulf of Bothnia, five in the Main Basin and three in the Gulf of Finland. Monitoring in these "full index rivers" should consist of electrofishing, smolt trapping and counting of spawners.

  At present, wild Baltic salmon rivers can be divided into three main groups, according to how much data is collected:

  1. Rivers with **basic data collection** to measure recruitment (i.e. electrofishing to determine parr density).
  2. Rivers with **extended data collection**. In addition to electrofishing, data on smolt abundance or ascending spawners is collected. (Some of these rivers with extended data collection are occasionally referred to as "index rivers", although monitoring of all life stages is not collected.)
  3. **Full index rivers:** data is collected annually on parr densities, smolt abundance and spawner counts.

- Until present (2017) only four full index rivers have been established (Simojoki, Tornionjoki/Torneälven, Vindelälven, Mörrumsån), although it should be emphasized that data from several rivers with extended data collection is also utilized in the stock assessment. WGBAST has repeatedly stressed the importance of establishment of full index rivers representing all six assessment units (AUs) in the Baltic Sea. Without such information it is difficult to (1) monitor the actual importance of the fishery for future development of river stocks in all areas, (2) properly estimate at-sea survival, and (3) create stock–recruit functions needed for determining actual and potential smolt production. All this information is needed to assess future stock development under different exploitation scenarios. Note that regional cooperation (cf. above) is needed also when it comes to the selection of salmon index rivers.
- For sea trout, WGBAST has identified needs for a network of selected index rivers (streams) around the Baltic Sea. At present, however, collection of biological river data for sea trout is not included within EU-MAP. Furthermore, a temporary study group within ICES (WGTRUTTA) is currently evaluating various approaches for assessing sea trout stocks, and it is yet not clear if designated index rivers should be prioritized, and if so, how these rivers should be selected etc.

Response from WGBAST to DSG 2017 questions.

COMMENTS ON RECOMMENDATIONS FROM THE "PAN-REGIONAL DIADROMOUS FISH RCG"

At the Regional Co-ordination Group Meeting for the Baltic Sea region (RCG Baltic) 2017, the following recommendations were directed to WBAST from the diadromous species subgroup (DSG):

Recommendations for WGBAST
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5. 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.
6. WGBAST to work out the optimal approach for selecting the appropriate index rivers in the Baltic

Below follow comments from WGBAST on these recommendations. Note that since data collection for sea trout within EU-MAP is presently restricted to commercial and recreational fishery statistics, focus is mainly on salmon.

"WGBAST to consider and report any benefits to Atlantic salmon and sea trout assessment of regional coordination of data collection in the Baltic."

- A large portion of the data needed for stock assessment of Baltic salmon (and sea trout) is collected in fresh water (parr densities, smolt and spawner abundance, river catch statistics). This work is carried out on the national level (with EU-MAP funding). Regional coordination is needed to ensure that the data collected is comparable, of similar/high quality, and representative for the stocks (i.e. rivers) regardless of geographical location. As an example of the need for further coordination, number of sites electrofished every year varies considerably among regions and rivers/streams for both salmon and trout.
- Results from scale reading is used to "feed" the WGBAST assessment model with empirical information on relative abundance of wild and hatchery reared salmon in offshore catches from the Baltic Main Basin. Regional coordination is necessary to collect this type of data because (1) several MS are involved in the Main Basin fisheries, and (2) scales are partly analyzed in other countries than where collected.
- The commercial and recreational Baltic Sea salmon and sea trout fisheries (offshore and coastal) to varying degrees target mixtures of wild and reared stocks with various status and

productivity. For reliable and precise assessment, proper information on stock specific catches is needed. Since several years, salmon scale samples from the Main Basin, Gulf of Bothnia and Gulf of Finland have been analyzed genetically and used to estimate stock composition. Although yet not directly included in the assessment model, genetic results have been used as valuable independent information for various comparisons and evaluations. Regional coordination of genetic mixed-stock analyses is necessary because (1) during their feeding and spawning migrations, Baltic salmon are exploited in multiple off-shore and coastal fisheries in several countries, (2) samples collected are to a large extent genetically and statistically analyzed in another country than where collected, and (3) to assure that all raw data produced are fully comparable. For sea trout, there is general lack of information on stock composition in coastal commercial and recreational catches and no systematic, regionally coordinated data collection is presently ongoing.

- An increasing proportion of Baltic salmon and sea trout catches are taken by recreational fisheries. Even though collection of recreational fisheries data needs to consider country-specific characteristics such as different legislation and fishing methods, better coordination and harmonization of data collection between countries may be beneficial to provide robust data in the most efficient manner. This is particularly the case for the salmon trolling fishery in the Main Basin, where recreational fishers from multiple countries fish with similar methods on the same mixed stock.
- In future years, additional data collection within the Baltic could also be in need of regional coordination. For example, due to lack of data describing salmon year-class strength at sea, a weakness of the current assessment is to predict short term fluctuations in annual spawning-run strength. Internationally coordinated collection of data on salmon year-class strengths could be useful to inform the assessment model, but this option still needs to be evaluated by WGBAST. Likewise, adding data on variables that have been shown to affect Baltic salmon survival (e.g. temperature and prey abundance) could improve the stock assessment.

"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."

- Within a recent "benchmark process" WGBAST initiated work to transfer **catch data** from commercial salmon sea fisheries into InterCatch (database hosted by ICES). For various reasons that process could not be completely finalized, but the plan is to continue this work within the near future. Discussions are also ongoing to allow inclusion of recreational salmon catch statistics (from both sea and rivers).
- When it comes to **biological data** for salmon stock assessment, this is mainly collected in fresh water on the national level (i.e. data on parr, smolts and returning spawners). At present, these data are kept in separate data bases at the national laboratories involved in the collection. Although WGBAST recognizes the importance of quality assured and standardized data bases, it is noted that the biological salmon data collected in fresh water is largely heterogeneous, and it can therefore not easily be merged into a single common data base (on the national or international level). Furthermore, salmon data from freshwater differs fundamentally from marine data in terms of methods for collection and presentation. Therefore, it is not obvious that incorporation of biological salmon data into RDB is possible or motivated, given the large effort that will likely be needed.

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

- Already in 1999, the former International Baltic Sea Fishery Commission (IBSFC) adopted a list of Index Rivers to be established as part of the IBSFC Salmon Action Plan; in total, twelve such

rivers were appointed, four in Gulf of Bothnia, five in the Main Basin and three in the Gulf of Finland. Monitoring in these “full index rivers” should consist of electrofishing, smolt trapping and counting of spawners.

At present, wild Baltic salmon rivers can be divided into three main groups, according to how much data is collected:

4. Rivers with **basic data collection** to measure recruitment (i.e. electrofishing to determine parr density).
5. Rivers with **extended data collection**. In addition to electrofishing, data on smolt abundance or ascending spawners is collected. (Some of these rivers with extended data collection are occasionally referred to as “index rivers”, although monitoring of all life stages is not collected.)
6. **Full index rivers:** data is collected annually on parr densities, smolt abundance and spawner counts.

- Until present (2017) only four full index rivers have been established (Simojoki, Tornionjoki/Torneälven, Vindelälven, Mörrumsån), although it should be emphasized that data from several rivers with extended data collection is also utilized in the stock assessment. WGBAST has repeatedly stressed the importance of establishment of full index rivers representing all six assessment units (AUs) in the Baltic Sea. Without such information it is difficult to (1) monitor the actual importance of the fishery for future development of river stocks in all areas, (2) properly estimate at-sea survival, and (3) create stock–recruit functions needed for determining actual and potential smolt production. All this information is needed to assess future stock development under different exploitation scenarios. Note that regional cooperation (cf. above) is needed also when it comes to the selection of salmon index rivers.
- For sea trout, WGBAST has identified needs for a network of selected index rivers (streams) around the Baltic Sea. At present, however, collection of biological river data for sea trout is not included within EU-MAP. Furthermore, a temporary study group within ICES (WGTRUTTA) is currently evaluating various approaches for assessing sea trout stocks, and it is yet not clear if designated index rivers should be prioritized, and if so, how these rivers should be selected etc.

Annex 15. Regional fisheries overview

In this annex we provide an overview of the main fishing types, demersal, pelagic and flatfish, and the distributions by species, landing location and flag fleet.
The locations are the harbour codes mapped to the UNLOCODES. The data is the commercial landings data uploaded by all MS in the RDB in 2017.

Results
Detailed data on the length composition of the vessels operating in North Sea or Eastern Artic is not available si data on fleet characteristics was compiled from the EU Fleet Register. The numbers of vessels by flag and length class in the EU vessel register active 1st January 2017 are presented in table 15.1. The differences in number of vessels relative to 2016 is presented in table 15.2. Similar tables respecting power and gross tonnage are presented in table 15.3 and 15.4, and 15.5 and 15.6, respectively. Overall, 60% of all active registered EU vessels are below 8 meters and only 1% is above 40 meters (Table 15.1) but these percentages likely differ significantly across marine areas and say little about the North Sea situation.

Overview of North Sea landings
Based on RDB 2017 CL data for the North Sea (including IIIa and VIId) vessels above 40 meters are catching the main part of the total landings by weight (Fig. 15.1 and 15.4). Denmark has the largest total landings in tons, followed by Scotland and on a third place Germany. Sweden, France and England are next. However, there is a relative large difference in the fishery and main target species between member states. In weight the main part of the landings are small pelagic with sand eels, herring, mackerel and sprat. The 5th most important by weight is plaice, followed by scallops, saithe and cod (Fig. 15.3). The main harbours are located in Denmark

Small pelagic
Sand eels, herring, mackerel and sprat are by far the most important small pelagic in the North Sea, IIIa and 7d area fishery (Fig 15.6). Denmark and Sweden are the largest fishing nations on sand eels, but on herring and mackerel more nations contribute to the fishery (e.g., Scotland, the Netherlands and Germany). For the mackerel fishery within this area Scotland and Ireland are the most important fishing nations (Fig. 15,7). The sand eel fishery is mainly conducted in Skagerrak close to the Danish coast and on Doggers Bank in the middle of the North Sea. The mackerel fishery is mainly conducted in the Northwestern part of the North Sea close the Shetland Islands and the sprat fishery in the southern part along the Danish west coast (Map 1). The main ports for landing of small pelagic are located in Denmark with Thyberøn, Skagen and Hanstholm as the three largest followed by Ijmuiden in Holland and Peterhead in Scotland (Fig. 15,9).The fleet fishing small pelagic is primarily composed of large vessels above 40 meters (Fig. 15.11 and 15.12).

Demersal fisheries
In 2017 saithe was the most important demersal species in weight, followed very close by cod, haddock and whiting (Fig. 15.13). In the demersal fishery Scotland is the most important fishing nation in this area, followed by Denmark, France and Germany. The fishery is mainly conducted between the Shetland Island and the northern part of Denmark and the main harbours are also located in these two areas (map 2). The main vessels conducting this fishery are slightly smaller than in the small pelagic fleet being between 24-40 meters or 18-24 meters (Fig. 15.18).

Flatfish Fisheries
In 2017 plaice was by far the most important flatfish species fished in the area, followed by sole and turbot. The Netherlands was the member state targeting flatfishes the most followed by Denmark, England and Belgium (Fig. 15.21). The fishery was mainly conducted in the eastern part of the North Sea from Skagerrak to the English Channel. The Dutch vessels mainly contributing to the fishery are above 40 meters but smaller vessels are also participating in this fishery (Fig. 15.25).

Missing data
All data on landed weight, harbours and vessels components were uploaded in the RCG prior to the meeting. The French length data have not been uploaded and the age data from France were made available just after the meeting.

Table 15.1. Vessels by flag and length class in the EU vessel register active 1st January 2017. Data fleet register.

	BEL	DEU	DNK	ESP	EST	FIN	FRA	GBR	IRL	LTU	LVA	NLD	POL	PRT	SWE
[0-8[	0	881	1419	4921	1189	2359	3477	3367	1218	80	547	226	332	6189	629
[8-10[	0	156	367	1236	245	514	1525	1522	365	10	54	94	206	711	284
[10-12[	1	84	112	660	76	154	938	408	247	10	9	38	134	314	201
[12-18[	4	150	227	1096	17	32	432	472	94	1	11	55	65	402	87
[18-24[	31	87	71	679	5	13	274	239	86	4	3	191	55	158	39
[24-40[	36	35	35	617	20	18	146	179	82	26	43	143	46	165	26
[40+[	0	18	33	103	5	3	42	48	25	11	12	97	5	20	11

Table 15.2. Difference in number of vessels active 1st January 2017 and 1st January 2016. Data fleet register.

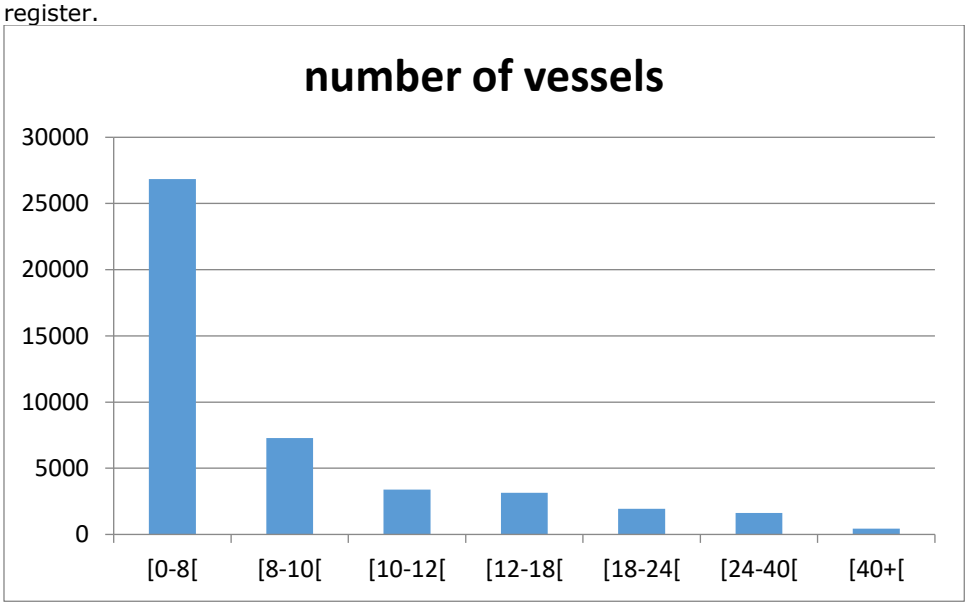


Fig 15.1. Number of active vessels by length group 1st January 2017

	BEL	DEU	DNK	ESP	EST	FIN	FRA	GBR	IRL	LTU	LVA	NLD	POL	PRT	SWE
[0-8[	0	-27	-37	-59	20	339	-45	19	-16	-4	-2	9	-2	-60	-22
[8-10[	0	-2	-19	-1	-1	31	-7	-8	-10	1	0	1	-1	-5	-3
[10-12[	1	-1	-15	-7	0	0	2	-1	1	0	0	2	-7	-1	-9
[12-18[	-2	-2	-15	-16	0	1	-14	1	0	0	0	4	-23	-5	-3
[18-24[	-3	0	-6	5	0	-1	-7	-5	1	0	0	-3	0	-2	0
[24-40[	0	0	0	-5	0	-1	2	0	1	0	-6	-1	0	-3	-4
[40+[	0	0	0	-2	0	1	-1	-3	-1	0	1	3	1	0	0

Table 15.3. Power (1000*kW) by flag and length class in the EU vessel register active 1st January 2017. Data fleet register.

	BEL	DEU	DNK	ESP	EST	FIN	FRA	GBR	IRL	LTU	LVA	NLD	POL	PRT	SWE
[0-8[	0	13,5	28,6	81	11,7	69,2	252,7	110,7	17,4	1,7	2,6	10,5	5,7	96,4	19,8
[8-10[	0	8,1	23,3	41,9	5,8	42,4	211,2	161,3	19,8	0,3	1,4	11,7	8,9	30,3	26,8
[10-12[	0,2	8	11,8	34,5	4,1	24,1	141,1	56,8	19,4	0,6	0,4	5,1	8,9	23,9	30,6
[12-18[	0,8	28,6	39,9	95,7	1,7	8,1	102,5	95,2	12,5	0,1	2	7,8	8,1	48,1	20,3
[18-24[	7,4	19	19,7	129,8	1,5	5,4	105,2	86,2	32,7	0,8	0,9	39,7	12,8	40,3	15,2
[24-40[	36,6	18,2	21,9	227,2	6,8	16,6	79,9	107,8	41,5	8,4	14,2	70,8	18	78,1	18,9
[40+[	0	44,6	64,2	181,2	13,9	3,4	110,4	151,5	48,1	36,2	25,6	165,4	20,8	33,3	29,8

Table 15.4. Difference in power (1000*kW) of vessels active 1st January 2017 and 1st January 2016. Data fleet register.

	BEL	DEU	DNK	ESP	EST	FIN	FRA	GBR	IRL	LTU	LVA	NLD	POL	PRT	SWE
[0-8[	0	0	0,2	-0,2	0	9,1	0	1,9	-0,5	-0,1	0	0,2	0	0,7	-0,5
[8-10[	0	0	-1,2	-0,2	-0,1	2,5	4,5	-0,6	-0,5	0	0	-0,4	-0,1	-0,1	-0,5
[10-12[	0,2	0	-1,8	-0,4	0	0,3	0,8	-0,1	0,2	0	0	0,5	-0,7	0,1	-0,9
[12-18[	-0,7	-0,2	-2,5	-1,6	0	0,2	-3,1	0,9	-0,4	0	0	0,7	-3,3	-0,8	-0,6
[18-24[	-0,4	0	-2,1	0,6	0	-0,3	-2,8	-1	0,1	0	0	-0,8	0,1	-0,8	0
[24-40[	0,6	-0,5	0	-2	0	-0,7	1,7	0	0,5	0,5	-1,3	1,7	0	-1,3	-3,0
[40+[	0	-0,4	-3,1	-2,6	1,2	1,3	3,3	-5,4	-0,7	-2,8	5,2	5,7	5,4	0	4,0

Table 15.5. Gross tonnage (1000*GT) by flag and length class in the EU vessel register active 1st January 2017. Data fleet register.

	BEL	DEU	DNK	ESP	EST	FIN	FRA	GBR	IRL	LTU	LVA	NLD	POL	PRT	SWE
[0-8[	0	1,2	2,1	6,3	0,8	3	6,4	5,7	1,8	0,1	0,4	0,3	0,6	6,7	0,9
[8-10[	0	0,8	2,2	4,5	0,8	2,6	7,2	10,7	2	0	0,2	0,3	1	3	1,6
[10-12[	0	1	1,4	4,5	0,5	1,6	10,9	6,4	2,7	0,1	0,1	0,3	1,4	2,9	2,4
[12-18[	0,1	4,7	8,2	21	0,2	0,9	19,3	19,7	3	0	0,3	1,2	2	8,6	2,9
[18-24[	2,6	6,2	7,2	41,6	0,6	1,1	31,6	31,7	11,8	0,4	0,4	12,8	3,3	10,2	4,6
[24-40[	11,1	7,7	10,2	119,8	2,8	5,7	31,4	43,8	17,2	4	5,9	23,6	7,4	31,3	6,7
[40+[	0	42,1	36,4	140,2	8,5	1,3	66,7	68,2	24,6	36,2	21,2	93	19,2	28,3	9,8

Table 15.6. Difference in gross tonnage (1000*GT) of vessels active 1st January 2017 and 1st January 2016. Data fleet register.

	BEL	DEU	DNK	ESP	EST	FIN	FRA	GBR	IRL	LTU	LVA	NLD	POL	PRT	SWE
[0-8[	0	1,2	2,1	6,4	0,8	2,6	6,5	5,6	1,8	0,1	0,4	0,3	0,6	6,7	0,9
[8-10[	0	0,8	2,3	4,5	0,8	2,4	7,2	10,7	2	0	0,2	0,3	1	3	1,6
[10-12[	0	1	1,6	4,6	0,5	1,6	10,9	6,4	2,6	0,1	0,1	0,3	1,6	2,9	2,5
[12-18[	0,2	4,8	8,5	21,3	0,2	0,9	19,6	19,6	3,1	0	0,3	1,1	2,7	8,7	3
[18-24[	2,8	6,3	7,8	41	0,6	1,2	32,4	32	11,6	0,4	0,4	13,2	3,3	10,5	4,6
[24-40[	11,1	7,9	10,3	122,1	2,8	6	30,6	43,3	17	3,9	6,4	23	7,4	32	7,8
[40+[	0	42,1	33,8	141,4	7,7	0,8	64,7	69,5	24,9	40,4	16,8	88,9	17,7	28,3	9

North Sea - Total landings

The locations are the harbour codes mapped to the UNLOCODES. The data is the commercial landings data uploaded by all MS in the RDB in 2017.

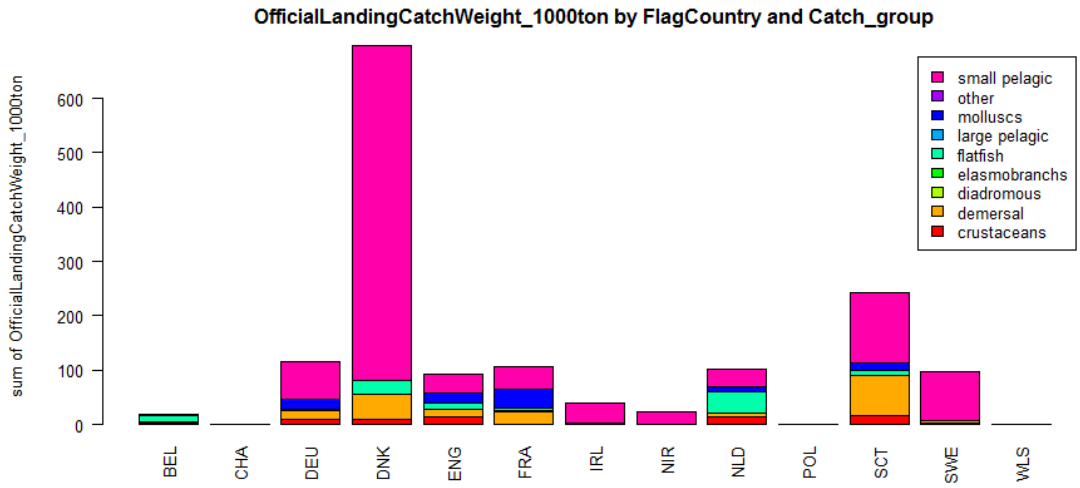


Fig.15.2. Total weight (*1000 ton) of official landings from the North Sea during 2017: Distribution by flag country and species group. Data source: RDB (extract 06/09/2018).

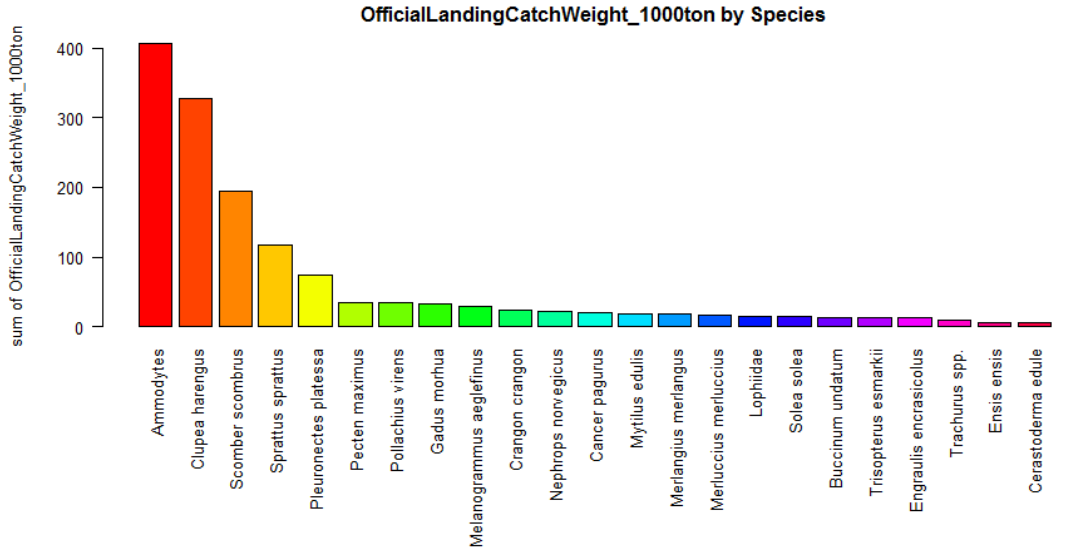


Fig. 15.3. Total weight (*1000 ton) of official landings of the main species (95% of landings) landed from the North Sea during 2017. Data source: RDB (extract 06/09/2018).

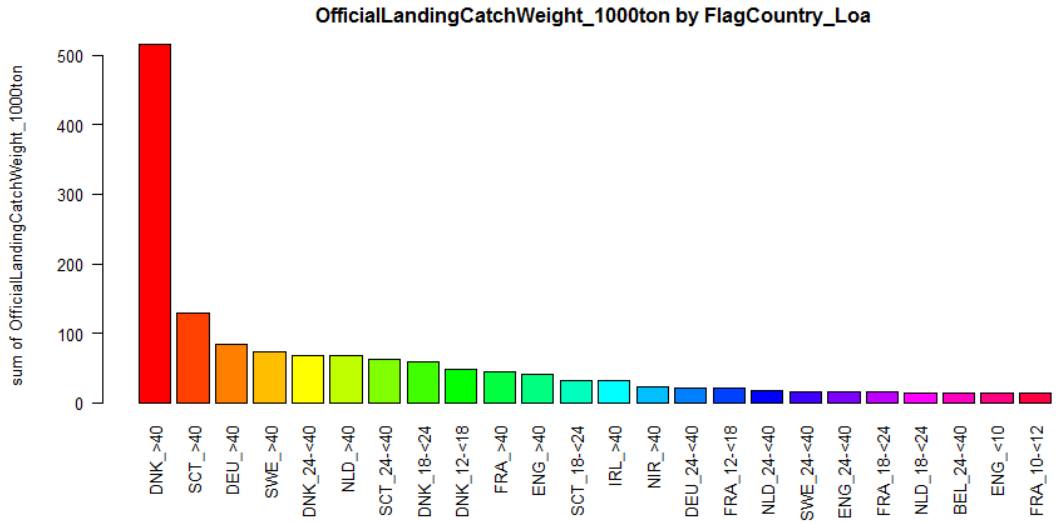


Fig.15.4. Total weight (*1000 ton) of official landings of the main fleets (95% of landings) landing from the North Sea during 2017. Data source: RDB (extract 06/09/2018).

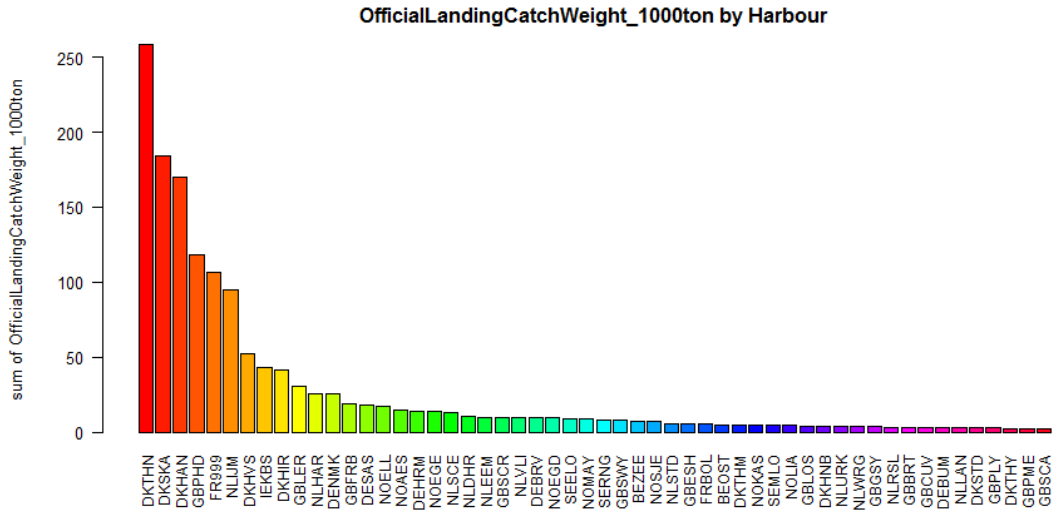


Fig. 15.5. Total weight (*1000 ton) of official landings of the main harbours (95% of landings) registering landings from the North Sea during 2017. Data source: RDB (extract 06/09/2018).

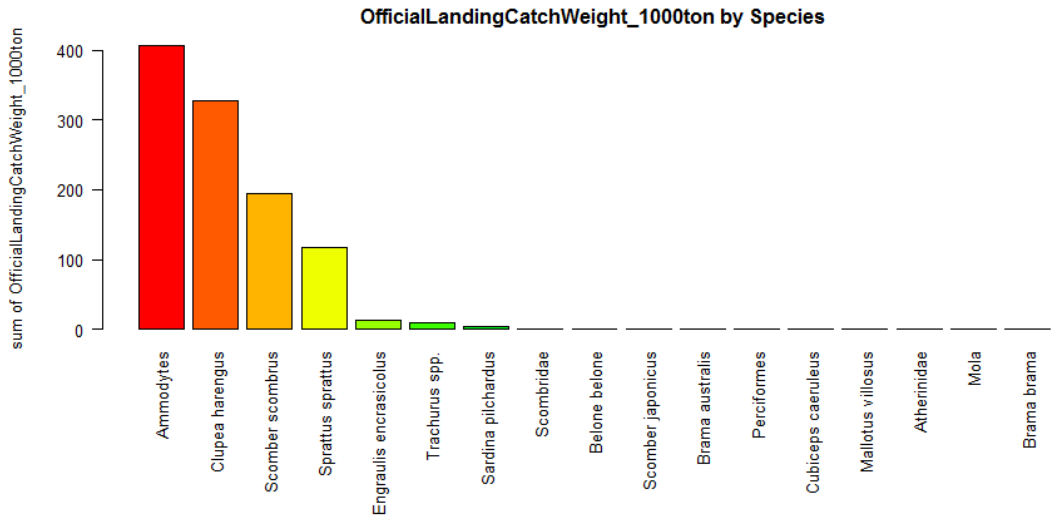
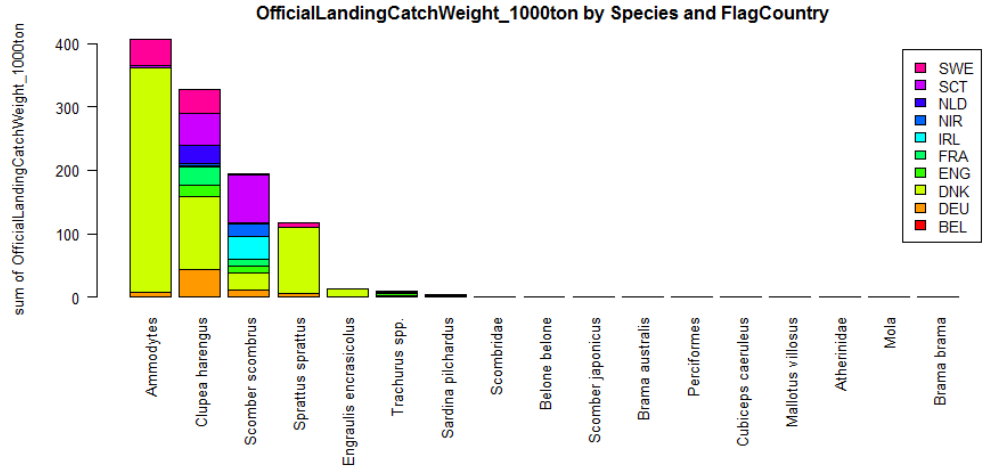


Figure 15.6. Total weight (*1000 ton) of official landings of pelagic species landed from the North Sea during 2017. Data source: RDB (extract 06/09/2018).



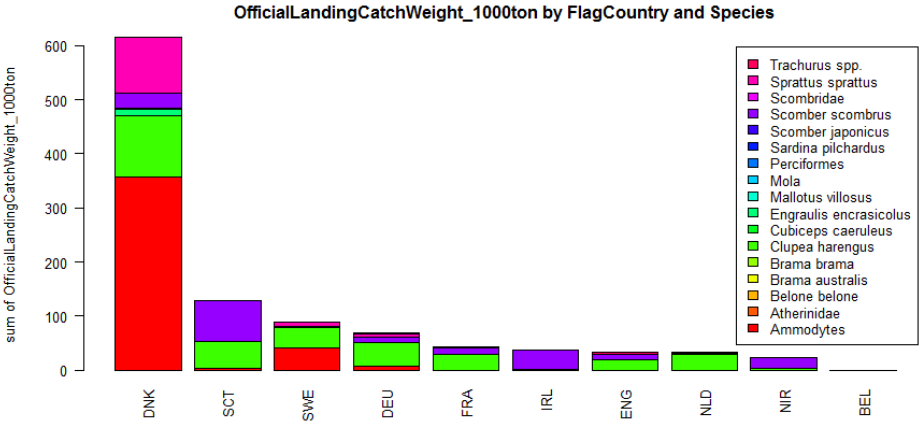
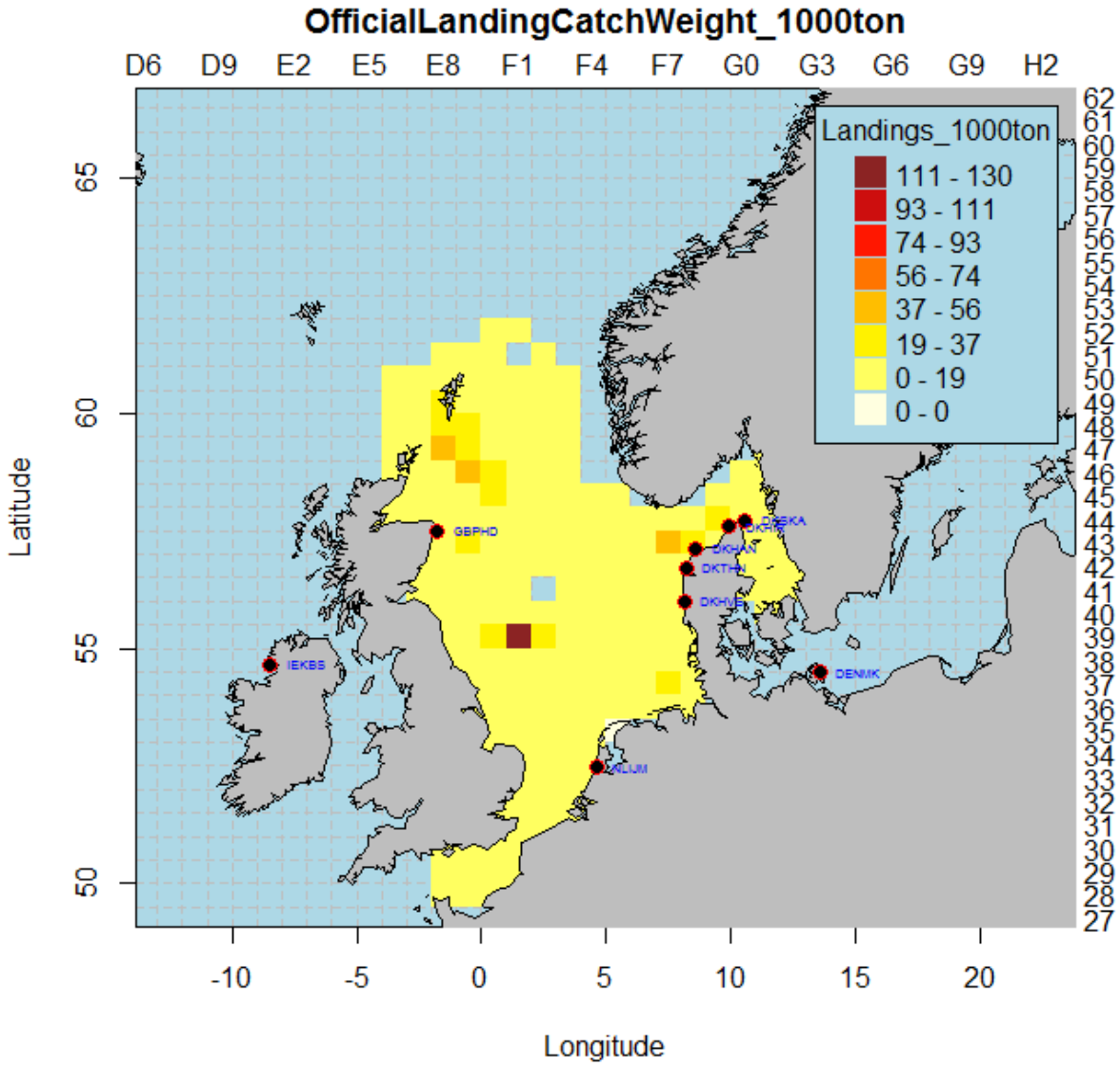
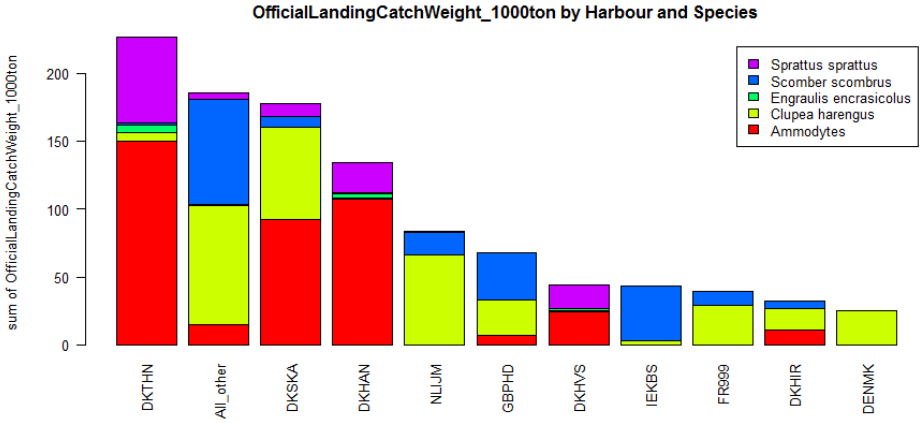


Figure 007 and

15.8. Pelagic species landed from the North Sea during 2017: Distribution by FlagCountry. Data source: RDB (extract 06/09/2018).



Map 01. Fishing grounds and main ports (top 10) of small pelagic species landed from the North Sea during 2017. Data source: RDB (extract 06/09/2018).



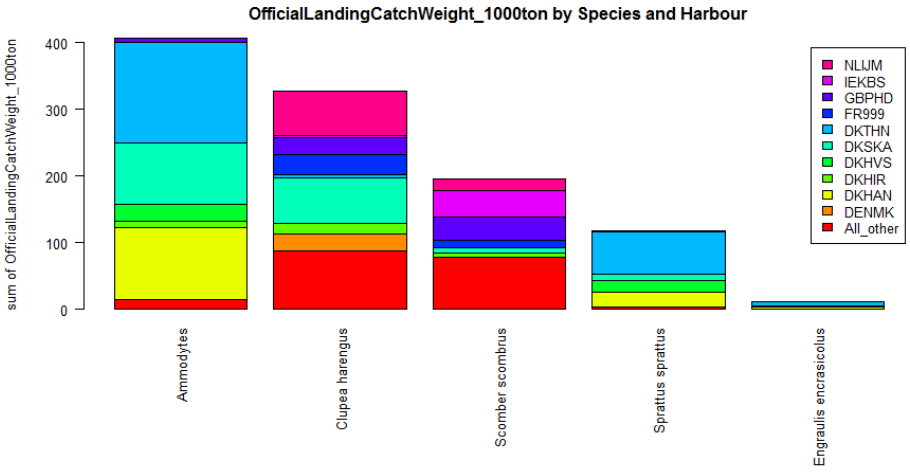
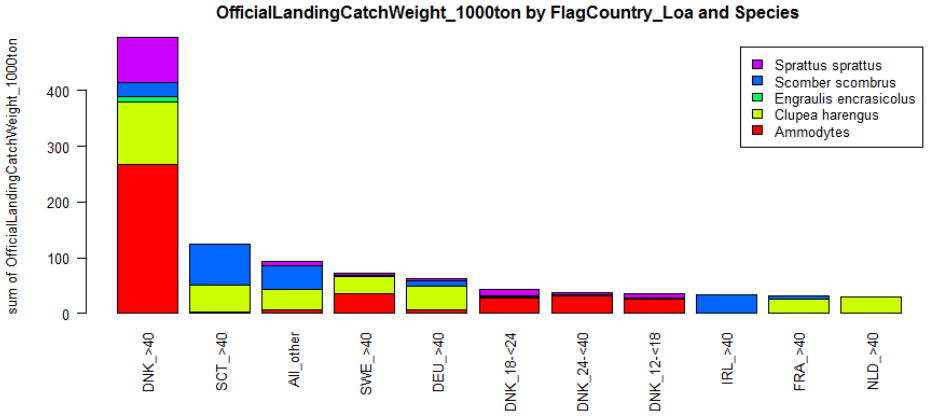


Figure 15.9 and 15.10. Main (top 5) pelagic species landed from North Sea areas during 2017: Distribution by Top 10 harbour. Data source: RDB (extract 06/09/2018).



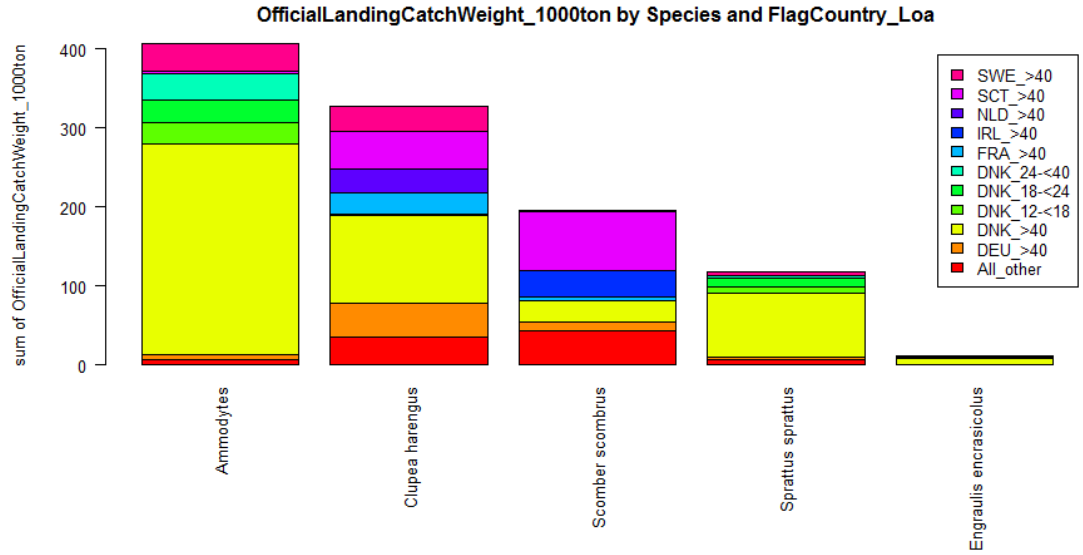


Figure 15.11 and 15.12. Main (top 5) pelagic species landed from North Sea areas during 2017: Distribution by Top 10 fleet. Data source: RDB (extract 06/09/2018).

North Sea – Demersal

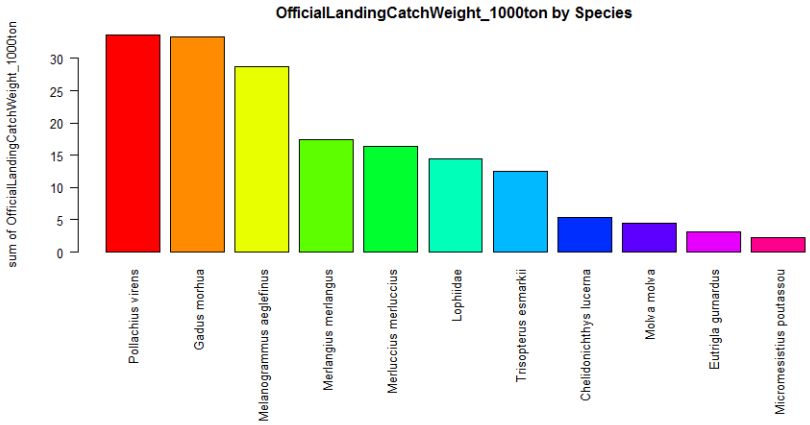


Figure 15.13. Main (top 95% in weight) demersal species landed from North Sea Areas during 2017. Data source: RDB (extract 06/09/2018).

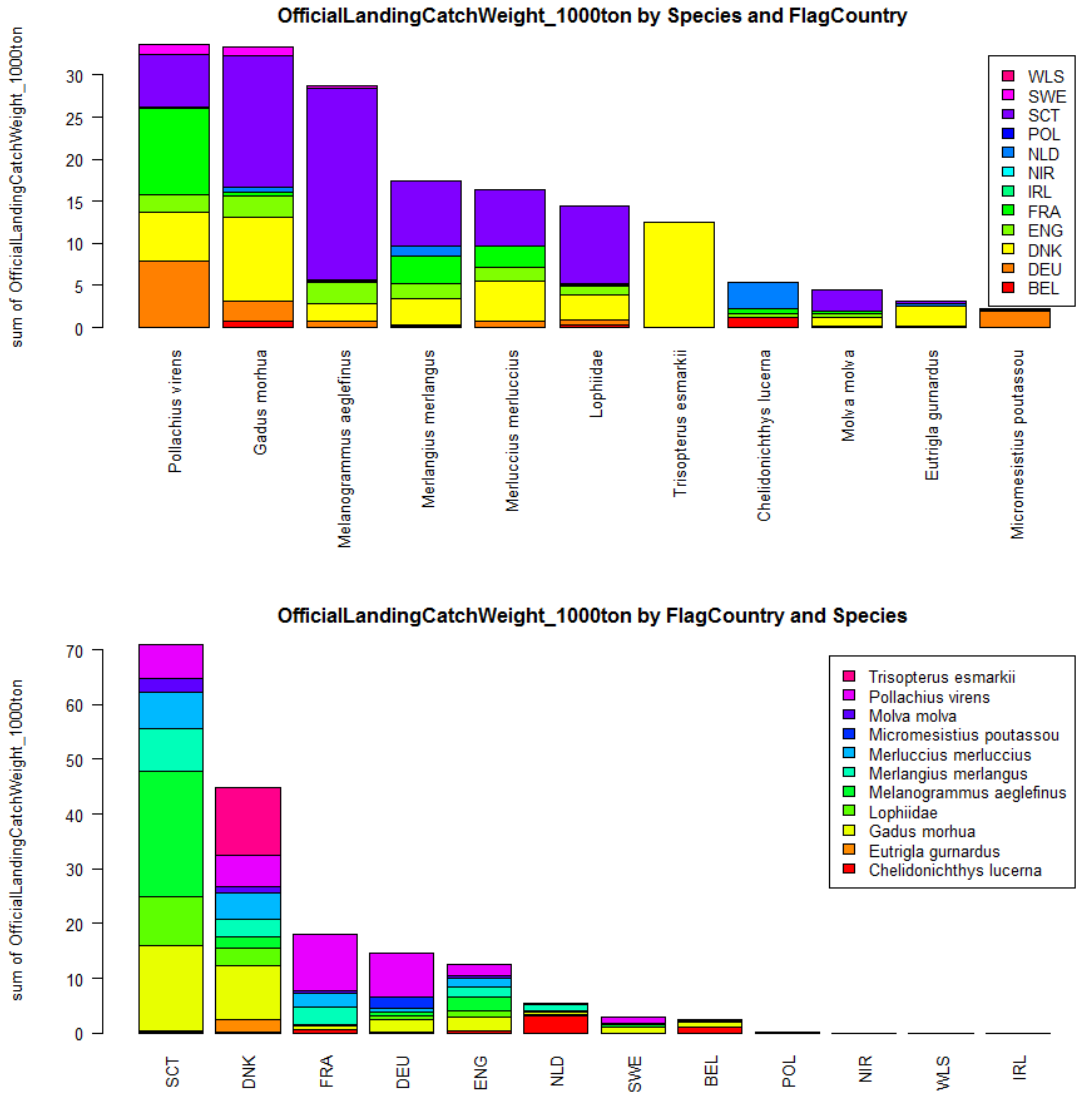
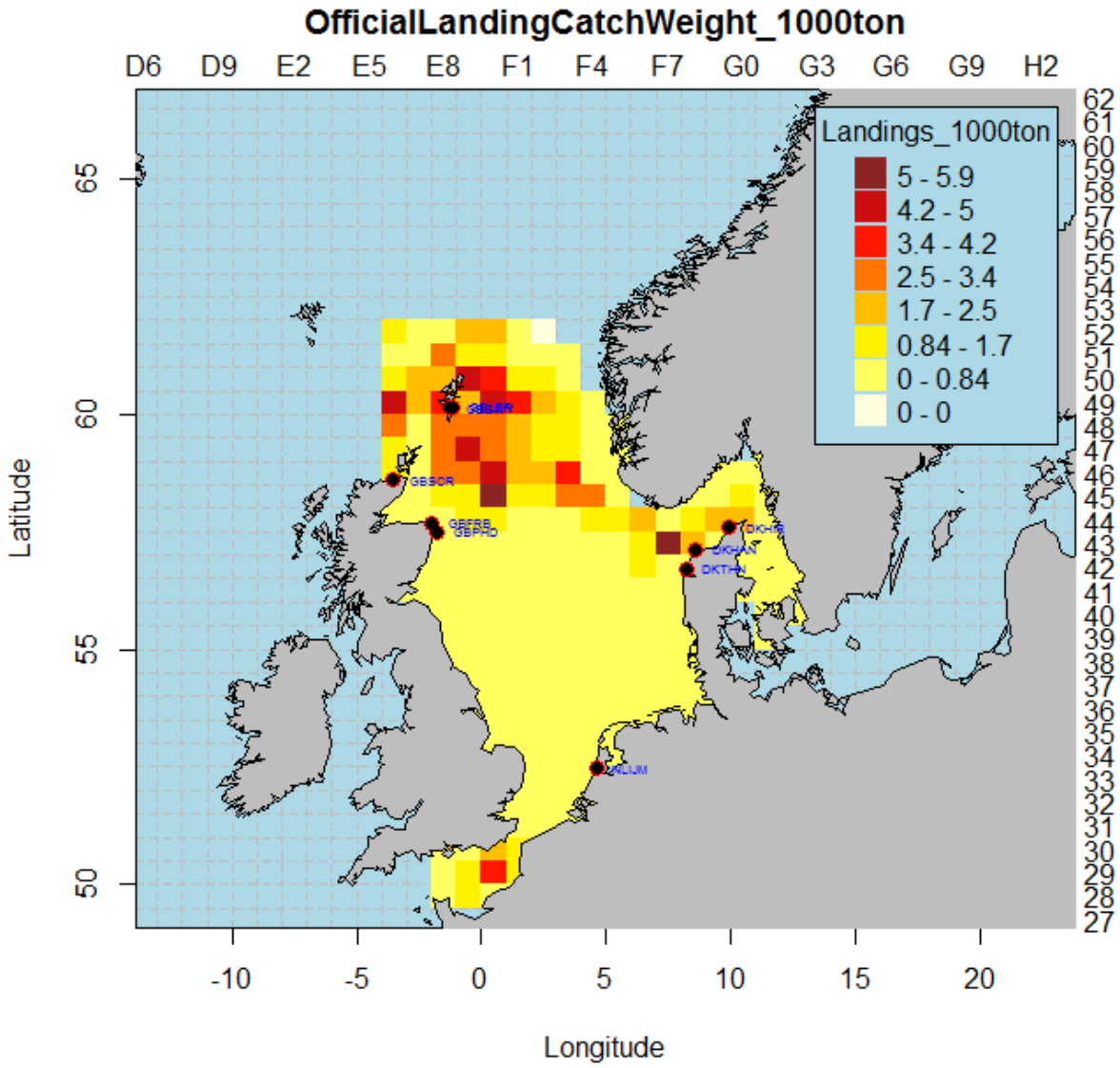


Figure 15.14 and 15.15. Main (top 95% in weight) demersal species landed from North Sea areas during 2017: Distribution by FlagCountry. Data source: RDB (extract 06/09/2018).



Map 02. Fishing grounds and main ports (top 10) of demersal species landed from the North Sea during 2017. Data source: RDB (extract 06/09/2018).

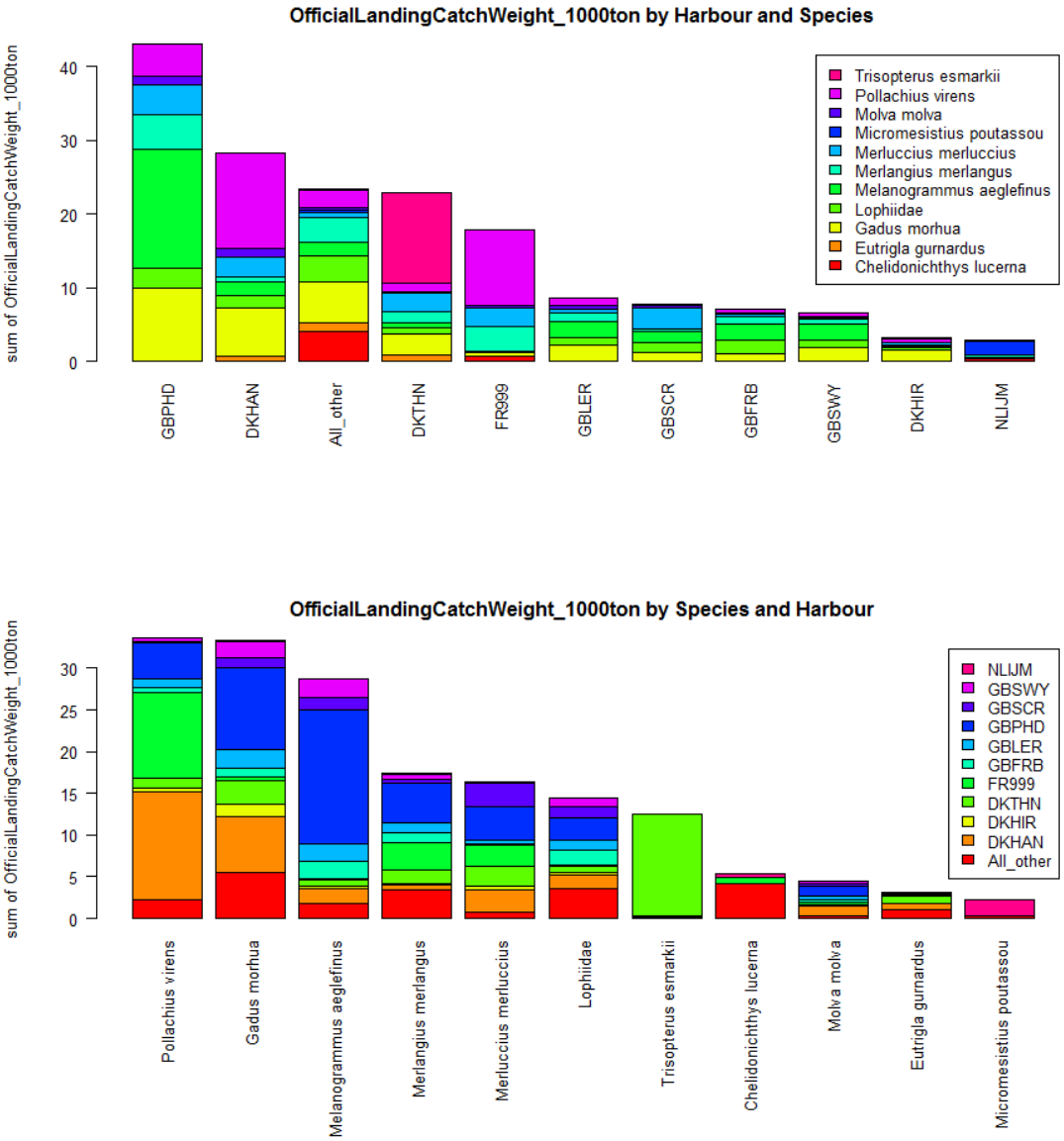
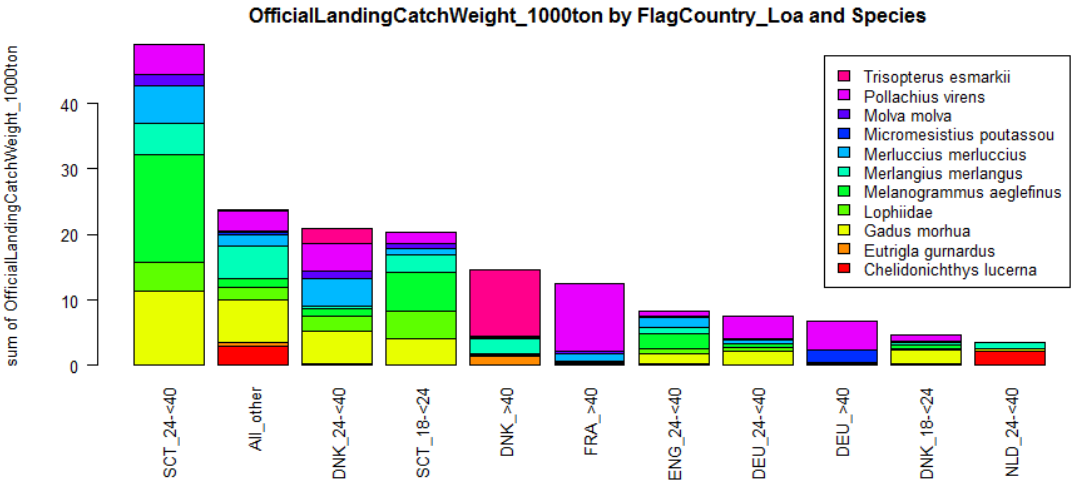


Figure 15.16 and 15.17. Main (top 95% in weight) demersal species landed from North Sea areas during 2017: Distribution by top 10 harbour. Data source: RDB (extract 06/09/2018).



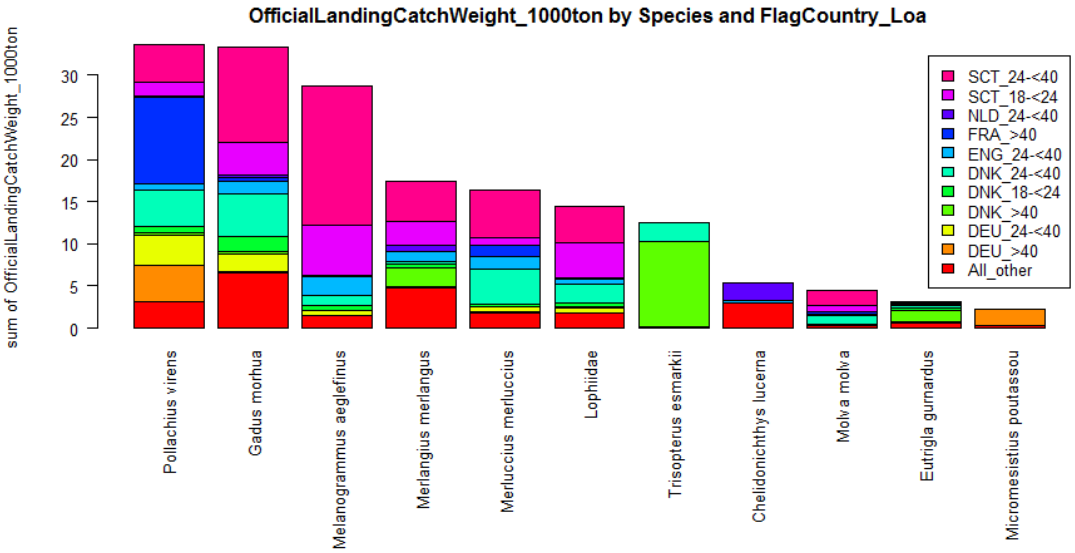


Figure 15.18 and 15.19. Main (top 95% in weight) demersal species landed from North Sea areas during 2017: Distribution by Top 10 fleet. Data source: RDB (extract 06/09/2018).

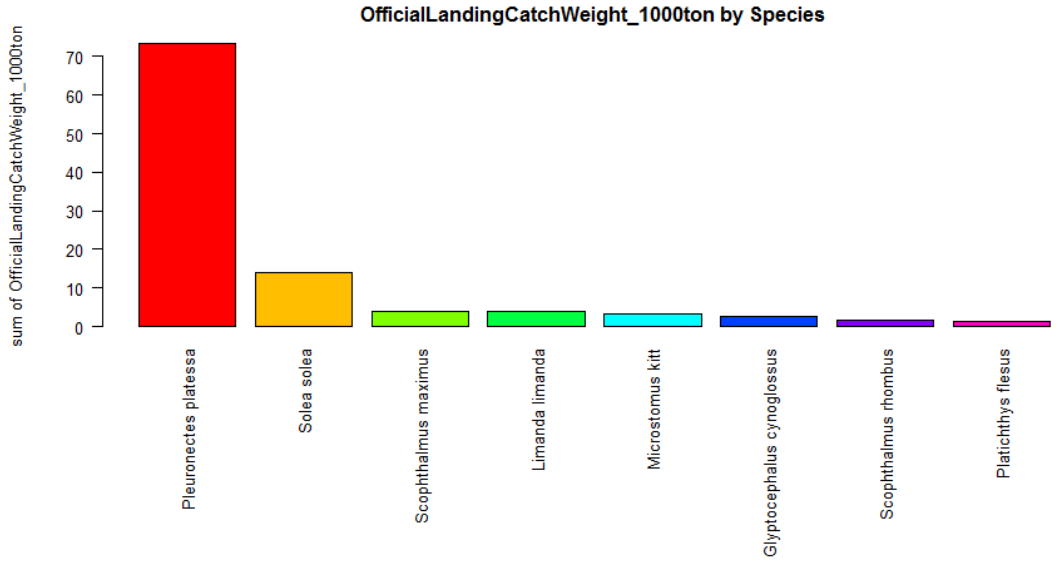
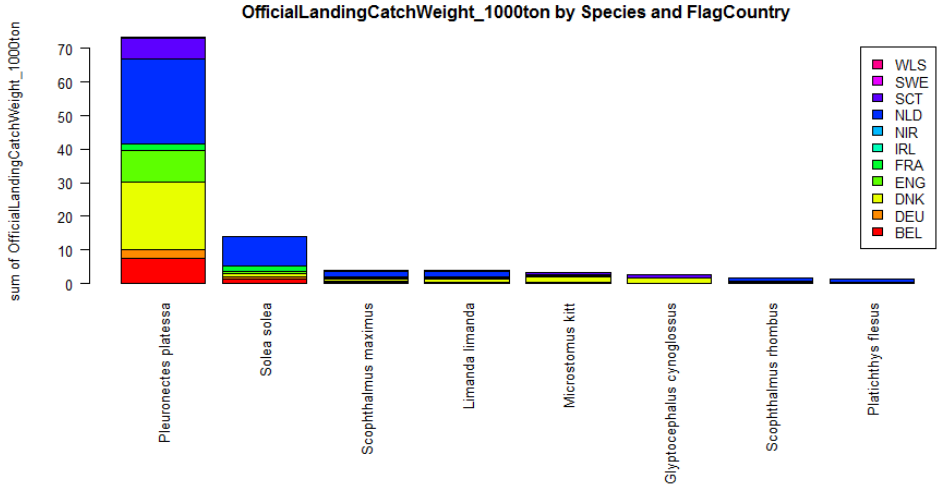


Figure 15.20. Main (top 99% in weight) flatfish species landed from North Sea Areas during 2017. Data source: RDB (extract 06/09/2018).



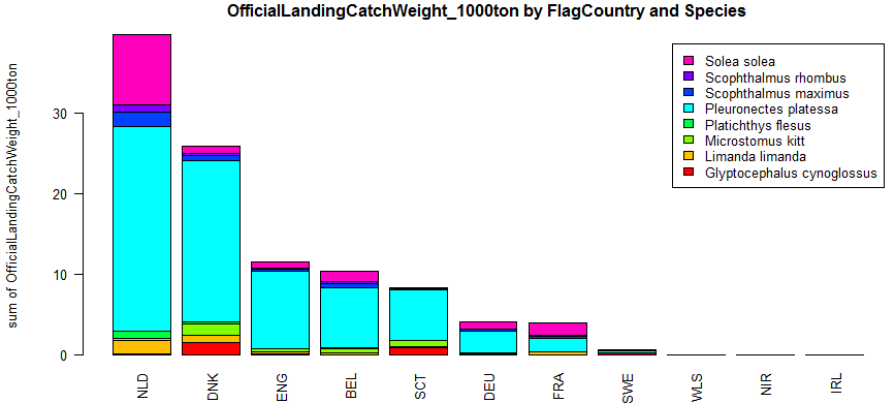
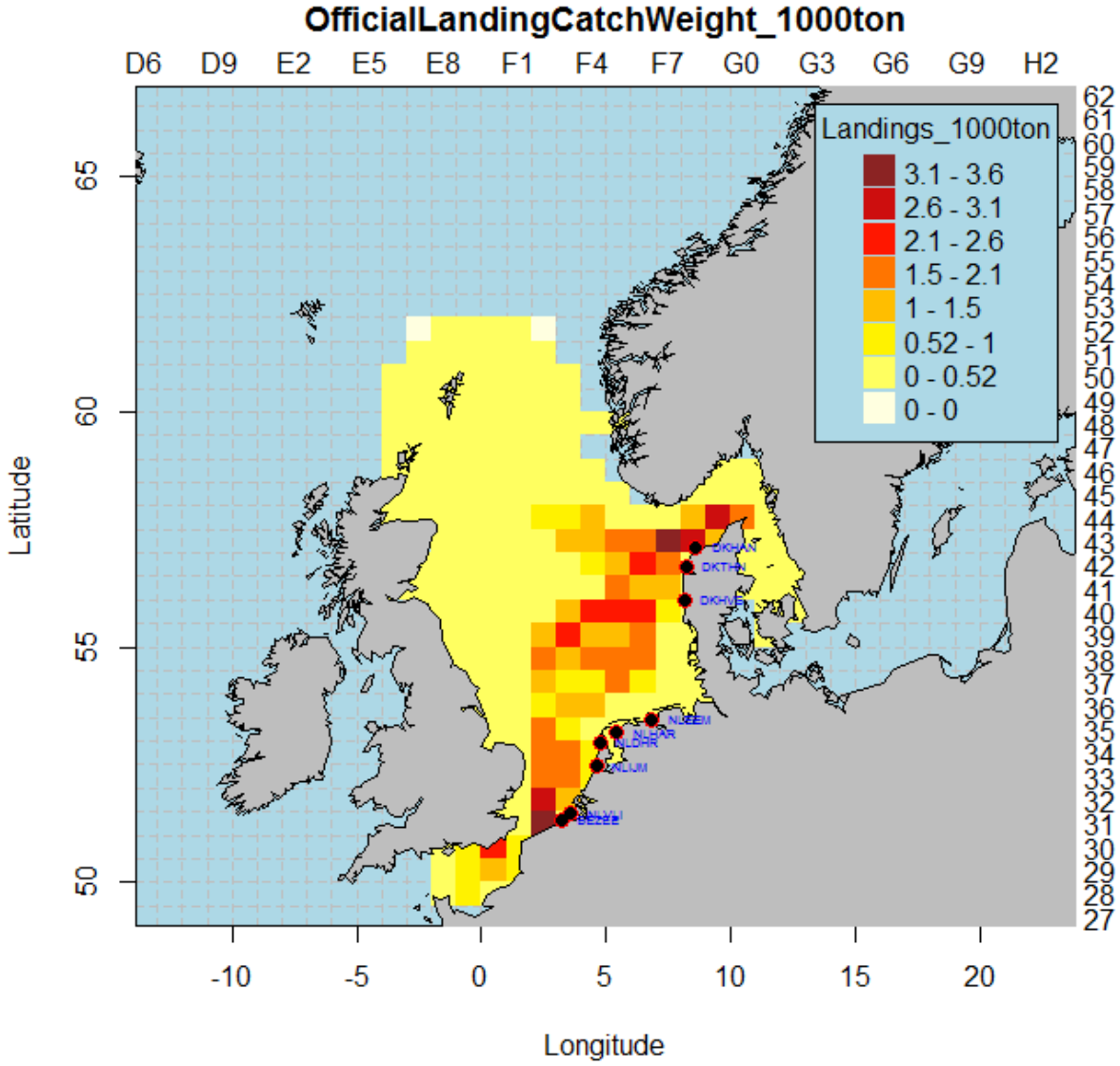


Figure 15.21 and 15.22. Main (top 99% in weight) flatfish species landed from North Sea Areas during 2017: Distribution by Flag Country. Data source: RDB (extract 06/09/2018).



Map 03. Fishing grounds and main ports (top 10) of flatfish species landed from the North Sea during 2017. Data source: RDB (extract 06/09/2018).

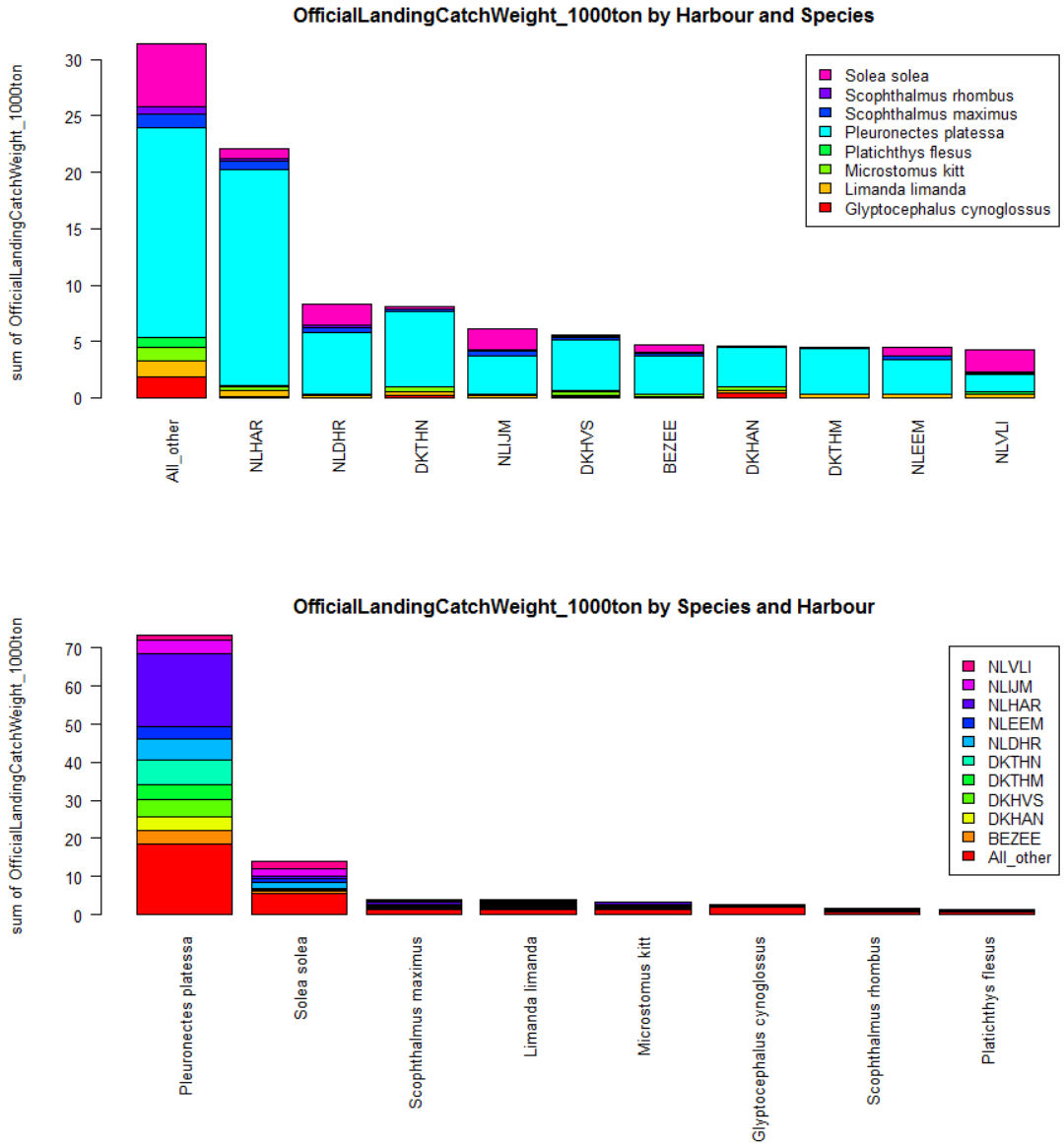


Figure 15.23 and 15.24. Main (top 99% in weight) flatfish species landed from North Sea areas during 2017: Distribution by Top 10 harbour. Data source: RDB (extract 06/09/2018).

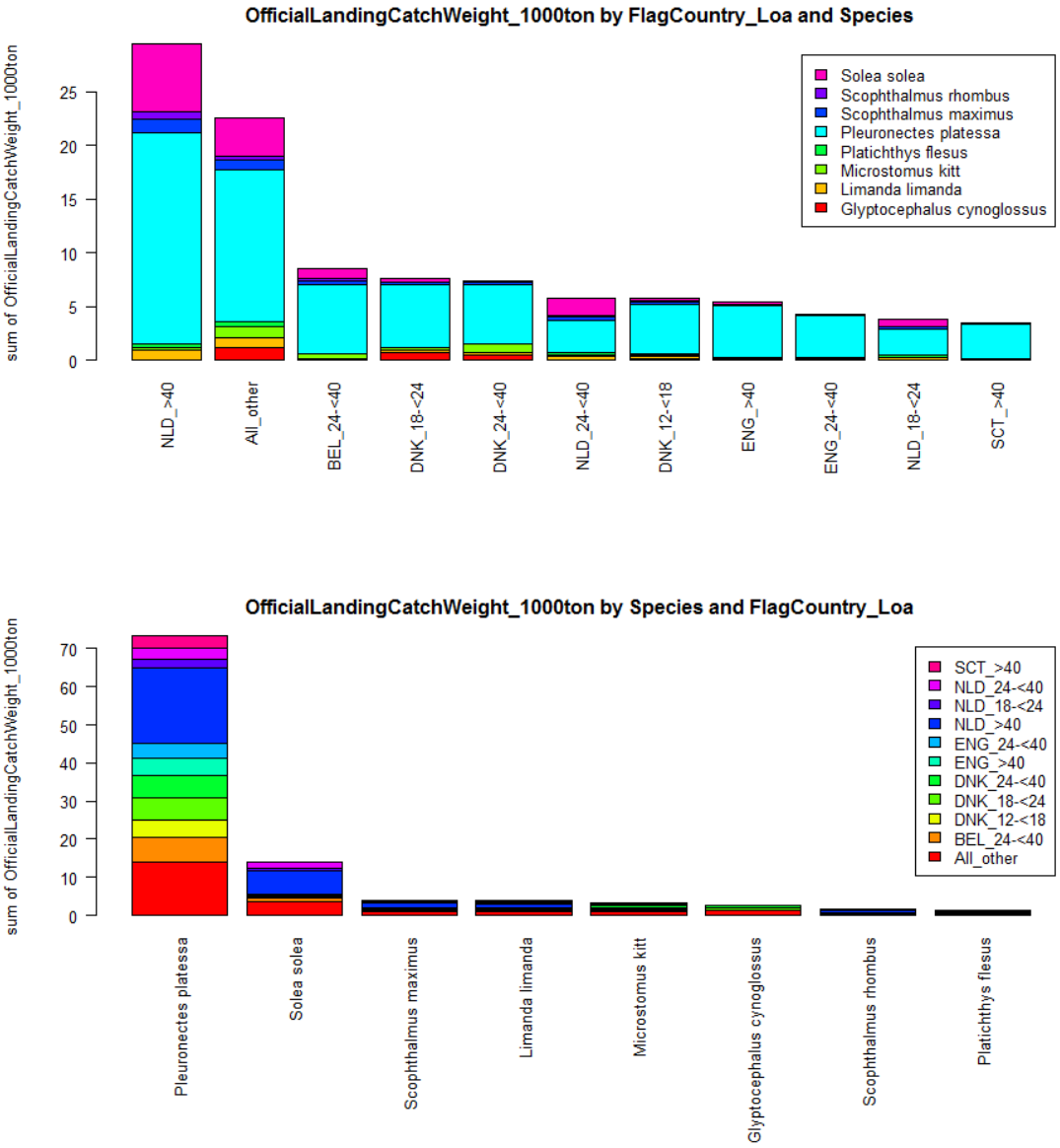


Figure 15.25 and 15.26. Main (top 99% in weight) flatfish species landed from North Sea areas during 2017: Distribution by Top 10 fleet segment. Data source: RDB (extract 06/09/2018).

Annex 16. Venues and chairs

The 2019 meeting will be held in Gent , Belgium from the 3-7 June. The co-chairs will be Els Torreele (Belgium) and Leonie O'Dowd (Irland). In order to facilitate the common memory of the group, the following table provides an overview of the venues and chairmanship of this RCM.

Year	Venue	Chair
2019	Gent, Belgium	Leonie O'Dowd (Irland) and Els Torreele, Belgium
2018	Lyngby, Denmark	Marie Storr-Paulson, Denmark and Els Torreele, Belgium
2017	Port-en-Bessin, France	Katja Ringdahl, Sweden and Marie Storr-Paulson, Denmark
2016	Edinburgh, Scotland	Alastair Pout, UK- Scotland and Katja Ringdahl, Sweden
2015	The Hague, The Netherlands	Alastair Pout, UK- Scotland and Katja Ringdahl, Sweden
2014	Lysekil, Sweden	Frans van Beek, The Netherlands
2013	Vigo, Spain	Frans van Beek, The Netherlands
2012	Ostend, Belgium	Els Torreele, Belgium
2011	Hamburg, Germany	Els Torreele, Belgium
2010	Charlottenlund, Denmark	Sieto Verver, The Netherlands
2009	Boulogne-sur-Mer, France	Sieto Verver, The Netherlands
2008	Aberdeen, UK-Scotland	Christoph Stransky, Germany
2007	Uddevalla, Sweden	Christoph Stransky, Germany
2006	The Hague, The Netherlands	Jørgen Dalskov, Denmark
2005	Bergen, Norway	Guus Eltink, The Netherlands
2004	Oostend, Belgium	Richard Millner, UK-England

Annex 17 Acronyms

4S: Statistically Sound Sampling Scheme
AER: Annual Economic Report edited by STECF based on data compiled from a formal data call
AR: Annual Report as defined in article 11 of EU Reg. 2017/1004
AWP Annual work plan
COM: European Commission (here DGMare)
COST: Common Open-Source Tools (R library developed during project FISH/2006/15 – lot 2)
CPCs: Contracting Parties and Cooperating Non-Contracting Parties
CV: Coefficient of Variation (standard deviation divided by mean)
DCF: In this report, used to refer to either the DCF or EU-MAP Regulation
DCV: Data compilation workshop
DCRF: GFCM Data Collection Reference Framework
DIA Diadromous species, in this report salmon and eel
DLS: Data-Limited stocks
DT, DTF: Data transmission, Data Transmission Failures
ESS: European Statistical Standard
EWG: Expert Working Group
FDI: Fisheries Dependent Information edited by STECF based on data compiled from a formal data call
GFCM: General Fisheries Commission for the Mediterranean
ICCAT: International Commission for the Conservation of Atlantic Tunas
ICES: International Council for the Exploration of the Sea
IOTC: Indian Ocean Tuna Commission
JRC: Joint Research Center
LM: Liaison Meeting (liaising all RCM meetings to gather and streamline the recommendations)
LP: Large Pelagics
Med&BS: Mediterranean and Black Sea
MS: European Member States
MSE: Management Strategy Evaluation
NC: National correspondent
NEA: North East Atlantic
NS&EA: North Sea and Eastern Arctic
NWP: National Work Plan as defined in article 6 of EU Reg. 2017/1004
PGECON: Planning Group on Economic Issues. Ad hoc forum taking place in lieu of the RCMs for dealing with economic issues in the DCF
PSU: Primary Sampling Unit
QAF: Quality Assurance Framework
RCG: Regional Coordination Groups as defined in EU-MAP Regulation
RCM: Regional Coordination Meetings
RDB: Regional DataBase. In this report, used in generic terms, i.e. not only the RDBs for biological data from commercial fisheries as e.g. hosted by ICES, but more generally, for any existing or future supra-national database storing some data collected under the EU data collection, including e.g. also the JRC database for economic data.
RF: Recreational fishery
RFMO: Regional Fisheries Management Organisation
ROP: Rules of procedures
RSE: Relative Standard Error (standard error divided by the estimate)