

Baltic Regional Coordination Group



Regional Coordination Group
Baltic

Regulation (EU) 2017/1004 of the European Parliament and of the Council of 17 May 2017

on the establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) No 199/2008 (recast)

Commission Delegated Decision (EU) 2021/1167 of 27 April 2021

establishing the multiannual Union programme for the collection and management of biological, environmental, technical and socioeconomic data in the fisheries and aquaculture sectors from 2022

Commission Implementing Decision (EU) 2021/1168 of 27 April 2021

establishing the list of mandatory research surveys at sea and thresholds as part of the multiannual Union programme for the collection and management of data in the fisheries and aquaculture sectors from 2022

Commission Implementing Decision (EU) 2022/39 of 12 January 2022

laying down rules on the format and timetables for the submission of national work plans and annual reports for data collection in the fisheries and aquaculture sectors, and repealing Implementing Decisions (EU) 2016/1701 and (EU) 2018/1283

**Baltic Regional Work Plan on data
collection in the fisheries and aquaculture
sectors**

2025-2027

Version 1.2

(Revised after STECF 2023 validation and suggestions for
improvement)

2024/08/16

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SECTION 1: GENERAL INFORMATION

Data collection framework at regional level

General comment: Use this text box to describe how data collection is organised in your region (countries involved, contact information) and what activities, methodologies, standards etc are included in the regional work plan.

As agreed during RCG 2023 decision meeting, this Regional Work Plan (RWP) for the Baltic region is the first official regional programme for the period 2025-2027.

Role of RCGs

The Regional Coordination Groups (RCGs) are the main hub for regional coordination and cooperation between member states within the different regions. The RCGs should in accordance with Council regulation (EU) 2017/1004 aim at developing and implementing procedures, methods, quality assurance and quality control for collecting and processing data with a view to enabling the reliability of scientific advice to be further improved. It is to the initiative of the RCGs to develop and implement the draft RWPs, supplementing the National Work Plan MS submit to the Commission on a regular basis.

The textboxes and tables presented in a RWP are all emanating from RCG Inter Sessional Sub-Groups (ISSG, see <https://www.fisheries-rcg.eu/intersessional-subgroups/> for more details), agreed at the RCG Technical Meeting and approved at the RCG Decision Meeting with all National Correspondents involved.

Objectives of RWPs

The RWP is a possibility offered in the Regulation EU 2017/1004¹, where it is stipulated that ‘*Regional coordination groups may prepare draft regional work plans [...]. Those draft regional work plans may include procedures, methods, quality assurance and quality control for collecting and processing data [...], regionally coordinated sampling strategies and conditions for delivery of data in regional databases. They may also contain cost-sharing arrangements for participation in research surveys at sea*’. It is also specified that ‘*a regional work plan shall be considered to replace or supplement the relevant parts of the national work plans of each of the Member States concerned.*’

After years of development in the RCGs leading to the several test run RWPs (RCG NANSEA and Baltic in 2021 and 2022, RCG Med&BS 2023), comments and suggestions by STECF and developments in DG MARE grant projects such as fishPi², Fishn’Co and Streamline, this RWP 2025-2027 for the Baltic region is the first agreed RWP and integrated in the NWP of the MS in the Baltic region.

Linkage between NWP and RWPs

The setting of this RWP one year in advance of NWP for the same period is meant to prepare all MS to integrate the agreed elements from the RWP in their NWP with some basic principles as follows:

Principle 1: RWP should only contain elements agreed at RCGs

Principle 2: RWP will contain information on a more general level so that there will not be a need to update it every year when some numbers in one MS NWP table will change. RWP may be amended during interim years, only if the amendments do not lead to modification and resubmission of all MS NWP in the region, unless all MS agreed to do so.

Principle 3: The legally binding document is the NWP, so elements of RWP are binding only when referred to in the NWP textboxes and tables. Thereafter, the realisation (AR) is reported only at national level, which will

¹ REGULATION (EU) 2017/1004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 May 2017 on the establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) No 199/2008 (recast)

then logically follow both NWP and RWP.

Guidance for MS

Each element of an RWP is an RCG agreement which needs to be reflected in all NWPs in a region. Reporting these agreements in NWPs formalizes these as commitment by each MS. MS should thus copy all relevant information from RWP tables directly into the corresponding table in the NWP to ensure consistency between NWPs and RWPs. For RWP textboxes, MS should make sure that a link is provided to the details of the relevant RWP textbox and add national specificities, if any.

The realization of the RWP will not be reported directly through added table columns and text sections. It is the approved NWPs, containing combined information from national and regional initiatives, which will be evaluated within the Annual Report evaluation process.

Contents and MS involved

This document and the related set of tables form the Regional Work Plan for the period 2025-2027 prepared by RCG Baltic. These two documents contain only elements of data collection which are regionally coordinated and were agreed at RCG Baltic. All coordination initiatives that are under development can be found on the RCG webpage (<https://www.fisheries-rcg.eu/level-of-ambitions/>).

The countries contributing to the data collection activities in the Baltic region are Denmark, Sweden, Finland, Latvia, Estonia, Lithuania, Poland, Germany.

The RWP Baltic 2025-2027 contains the following textboxes and tables:

- Section 1: General information
 - Textbox 1A: Test studies description
 - Textbox 1B: Other data collection activities
 - Table 1.2: Regional and International coordination
 - Table 1.3: Bi and multilateral agreements
- Section 2: Biological data
 - Table 2.1: List of required species/stocks
 - An addition of a control table is proposed for countries to compare declared landings in the RDB and in EUROSTAT; this is only for information purpose.
 - Textbox 2.3: Diadromous species data collection in freshwater
 - Textbox 2.4: Recreational fisheries
 - Textbox 2.5: Sampling plan description for biological data
 - Table 2.5: Sampling plan description for biological data
 - Textbox 2.6: Surveys at sea
 - Table 2.6: Surveys-at-sea
- Section 3: Fishing activity data
 - Textbox 3.1: Fishing activity variables data collection strategy
 - Textbox 3.2: Fishing activity variables data collection strategy (for inland eel commercial fisheries)
- Section 4: Impact of fisheries on marine biological resources
 - Textbox 4.2: Incidental catches of sensitive species
 - Textbox 4.3: Fisheries impact on marine habitats
- Annex 1.1: Quality report for biological data sampling scheme
 - Baltic SPF regional

Text Box 1a: Test studies description

General comment: This text box fulfils Chapter II, section 1.2 of the EU MAP Delegated Decision annex.

Within the boundaries of DCF following case studies are still under development and not expected to be finalised at the start of the 2025-2027 3-year period. They are given here as information for preparing the ground for future updates of the RWP. Each sub-section of RWP textbox 1A needs to be referred to in all involved MS NWP 2025-27 in order to confirm the listed agreements and commitments. These are, without order of priority:

Name of the study: 1 Genetics

1. Aim of the test study

Incorporation of the different genetic approaches that can be applied to fisheries/ecosystems assessment and monitoring.

2. Duration of the test study

2025-2027

3. Methodology and expected outcomes of the test study

Three main areas are identified concerning the application of genetics to fisheries assessment and which are distinguished by the aim they pursue and by the sample type they require. A preamble to data collection on these fields listed below is to identify clearly the cost estimates and end-user needs.

1. The genetic analyses of collected stomachs contents. This discussion is now included as part of the work of the Stomach sampling ISSG, where several presentations have been made. AZTI has also an EU Map funded test study, whose aim is to “Set the basics of a routine food-web monitoring program through genetic analyses of stomach contents”.
2. The analysis of environmental DNA, that is, that DNA collected by filtering water samples, and which contain traces of the organisms inhabiting the water column, including large ones such as fish and elasmobranchs. This approach, being considered a biodiversity monitoring approach, could be included as part of the Electronic Monitoring Technologies ISSG.
3. The sampling of fish tissue with the purpose of doing stock delimitation and identification studies, close-kin mark-recapture (CKMR) projects for biomass estimation or epigenetic analyses for age determination. It was discussed that this tissue sampling for genetic analyses could be integrated into the Surveys ISSG.

Agreement reached in RCG 2023: No Specific ISSG set-up for 2023/24

Agreement and commitment on the inclusion of genetics in data collection programs

MS involved: ALL

- Agreement to collaborate more in the use of genetics in the different fields of data collection
- Recommendation that ISSG on stomach sampling, ISSG on Electronic Monitoring Technologies and ISSG on Surveys include a term of reference on the use of genetics in their intersessional work

General comment: This text box fulfils Chapter II, section 1.2 of the EU MAP Delegated Decision annex.

Name of the study: 2 Diadromous species data collection

The regional coordination of data collection of diadromous species is under development in the RCG ISSG on diadromous fish species in collaboration with relevant ICES expert groups. The work relates to improve the coordination on sampling methodologies and the use of a central database to host their specific datasets. The newly accepted project DIASPORA (DIAdromous Species: moving towards new PARadigms to achieve holistic scientific Advice) will also have major implications on the development of data collection on Diadromous fish species.

1. Aim of the test study

The recently accepted EMFAF project proposal DIASPORA aims at better aligning data needs and data collection and is set to contribute to the objectives of the DCF and the CFP, which shall bring valuable insights for the future Regional Workplans.

2. Duration of the test study

DIASPORA project: 24 months between 2024-2027

3. Methodology and expected outcomes of the test study

DIASPORA will address pre-identified shortcomings in the scientific advice to better support a regionalized and holistic Ecosystem-bases approach to fisheries management of eel and salmon, putting spatial scales and diversity of human impacts at its core. Moreover, DIASPORA aims at aligning collection of biological and anthropogenic impact data with models to “optimise the collection and use of samples and collected scientific data under the Data Collection Framework”, and to “improve methodological aspects of the design, collection and/or management of the data collected”.

By explicitly accounting for the complex spatial structure of the species and providing more holistic advice, DIASPORA has the ambition of improving the regionalised management and as such, to contribute to the future Regional Workplans. Based on the expected results, and in collaboration with the ISSG Diadromous subgroup, DIASPORA aims to better align data needs and data collection, contribute to the objectives of the DCF and the CFP, and thus bring valuable insights for the future Regional Workplans.

While DIASPORA primarily targets eel and salmon, many of the outcomes of the project (databases, impact of dams and weirs, methodological developments) will also contribute to the advice and management of other species, including other diadromous species.

DCF-Data collection for Diadromous Species (Eel, Salmon, Sea Trout)

Baltic Salmon and Trout (WGBAST)

Data collection of Baltic salmon and sea trout is coordinated by the WGBAST at a regional level and data is collected partly in the national programs of EU data collection and partly in other national data collections, in some cases with a long history. ISSG Diadromous have evaluated the methodology used in electrofishing surveys in Baltic Sea riparian countries in their report of 2021 and concluded that it meets end user quality requirements.

Components of the data collection are:

- spawner counts (salmon only)
- parr densities (by electrofishing)
- smolt counts (salmon only)

- catch sampling for biological parameters (including genetic analysis) in fisheries
- landings, discards, seal damages and fishing effort in commercial and recreational fisheries in marine and freshwater areas.

Besides annual electrofishing to determine parr densities in all rivers with wild salmon populations, collection of additional data on salmon spawners and smolts is coordinated at the regional level by the appointment of Index rivers (at least one per assessment unit).

Eel in the Baltic (WGEEL)

Currently the international assessment by WGEEL is based on recruitment data, collected across the entire distribution area. The DIASPORA Project aims at a more holistic advice by explicitly accounting for the complex spatial structure of the species. As a result, DIASPORA has the ambition of improving the regionalised management and as such, to contribute to the future Regional Workplans in near future. According to the WKFEA roadmap, the aim is to have a first benchmark in 2027.

In the meantime, data on recruitment series collected for the international assessment should take into account following guidelines:

- Recruitment series should, whenever possible, continue existing series.
- The series should have the longest record possible, data from the 1960-1980 period will be of great value.

If data collection is started at a new recruitment site, these guidelines should be followed:

- The site location should be as close to the sea as possible
- The series should not be biased by local factors (gate operation, glass eel fishery, etc).
- The series should not be biased by glass eel translocation (restocking).
- The whole recruitment season should be sampled.
- The series should be representative of annual recruitment variation at the site.
- The series can be a trap, partial or total sampling, a scientific monitoring, a fishery-based index.

Each series should describe:

- The name of site, the unit (number or kg), the life stage (either glass eel, or a mixture of glass and yellow eel corresponding to glass eel having recruited the same year, or yellow eel in areas where glass eel recruits are not available), the code of the Eel Management Unit and the ICES subdivision (FAO code of sea region at the division level) of the river or sampling location, the longitude and latitude (in format EPSG:4326), the distance to the sea from the sampling site (the river path), the method of sampling.
- In addition, when possible, the series description should also include the effort in terms of number of fishing trips/day, a precise description of the method used and possible biases, a precise description of the site, including the sea where the river is flowing to, possible comments on the change in data collection (upgrade of the fishway, change in methods, change in local conditions, etc).
- Annual data should be provided, along with year, effort, comments on the annual data, comments on the quality of the series.
- Ideally, series should be accompanied with a set of biological descriptors relative to the annual sampling including, for sites comprising glass eel, the average length of glass eel with at least one sampling per month during the whole migration season (at least 4 to 5 months), based on individual samples of 50 glass eel (no preservation with formalin) measured to the nearest mm, weighted (after removing excess water) to the nearest 0.1 g, the pigmentation stage of the glass eel (to check for stages having resumed their growth).
- Whenever possible, the samples of glass eel should be collected in the estuary downstream from the trap (since there is a delay before the ascent of glass eel trap). For sites comprising a mixture of

glass eel and yellow eels, in addition to the described individual sampling, group metrics should indicate the proportion of glass eel in the mixture (reported as weight, if the series is weight based, and as numbers if the series is made of counts).

- For sites comprising yellow eels, group metrics of the average size and weight (and if possible, age) of ascending yellow eels, as well as individual samples of yellow eel size and weights.

Agreements and commitments on the coordination of diadromous fish species data collection

MS involved: ALL

MS agreed that the following activities should be evaluated and developed further to be part of the RWP:

- Ensure comparable methods between regions (e.g., in sampling methodologies such as recruitment data series, electrofishing protocols or comparability of effort data)
- Enable usage of Regional DataBase and Estimation System (RDBES) for partial data storage (landings).
- Meetings and/or email exchanges between ISSG Diadromous fish species and Assessment Working Groups will be maintained to ensure alignment between data collection and data use.

General comment: This text box fulfils Chapter II, section 1.2 of the EU MAP Delegated Decision annex.

Name of the study: 3 Regionally coordinated stomach sampling program

The fisheries impact on marine habitats and food webs are handled by the RCG ISSG on stomach sampling. The work relates to the development of a regionally coordinated stomach sampling program. So far, the coordination has focused on the NANSEA region only.

1. Aim of the test study

The work relates to a full set up covering sampling during surveys, stomachs analyses in laboratory, data storage and report to end users.

2. Duration of the test study

2025-2027

3. Methodology and expected outcomes of the test study

In the Baltic, sampling of stomachs of cod is already taking place during the internationally coordinated survey BITS and is coordinated through ICES WGBIFS. Some additional work to be undertaken before inserting the plan in Text Box 4.3, Table 4.1 and Annex 1.1

Agreement and commitment on the development of a regionally coordinated stomach sampling program

MS involved: ALL

- MS in the Baltic region to participate in the ISSG on stomach sampling and to work up a description on stomach sampling in the Baltic to be placed in Baltic RWP in Text Box 4.3, Table 4.1 and Annex 1.1

Text Box 1b: Other data collection activities

General comment: Use this text box to provide information on other data collection activities that relate to your EMFAF operational programme and need to be included in the work plan and the annual report. Describe activities that are funded by the DCF but fulfil objectives under other EMFAF priorities, like marine knowledge, or activities funded by the DCF, but without a direct link to the EU MAP specific requirements or WP template tables, like freshwater fisheries. You can also include one-off specific studies for a particular end-user need that do not enter the regular data collection.

This textbox is aimed at describing fundamental tools and services developed for a better functioning of the RCGs. Each sub-section of RWP textbox 1B needs to be referred to in all involved MS NWP 2025-27 in order to confirm the listed agreements and commitments.

1 - RCGs Secretariat

1. Aim of the activity

Support the operation and functioning of the RCGs Secretariat for a fluent regional coordination of data collection activities as stipulated by Article 9 of the DCF Regulation (EU) 2017/1004.

2. Duration of the activity

2025-2027

3. Methodology and expected outcomes of the activity

The Secretariat's organizational structure has been set up and pilot tested throughout the SecWeb project ([MARE/2020/08 grant](#)). The key functions of the RCG's Secretariat have been determined in close collaboration with all RCGs, in particular with RCG and Intersessional Subgroups (ISSGs) chairs. A business model has been developed. In addition, good practices in communication within and among the RCGs have been promoted and installed. The overall capacity to reach out to a wider public and increase the visibility of the work and output of the RCGs has been boosted with the development of a dedicated website and the consolidation of a visual identity.

RCG chairs and the RCG's network (including participants and stakeholders) have readily acknowledged the added value of having an RCG's Secretariat to support and improve data collection coordination activities.

Based on the SecWeb project outputs the proposed data collection activity will connect the whole RCG network and stakeholders to work together on common goals. The Secretariat provides fluent administrative and coordination support for more efficient regional coordination liberating national experts involved in data collection activities from heavy burden of administrative tasks.

Overall expected outcomes:

1. A full-time dedicated Secretariat support service for the RCGs enables a consistent approach to administer RCG activities, facilitating communication, and enhancing the intersessional work, and also supporting the work of RCG sub-groups.
2. A dynamic and permanently updated website (<https://www.fisheries-rcg.eu/>) will be kept available including as features:
 - Repository – one-stop location and reference location for reports, various agreements covering regional coordination, RCG protocols and working procedures
 - Integration – allowing seamless synchronization with third-party information needs and requests;
 - Responsive display – to serve content across multiple devices, screens, and browsers;
 - User experience- maintaining a satisfactory user experience throughout the website

sections;

- Accessibility – To any interested visitor in a user-friendly way across the website sections;
- Retention- keeping visitors coming back to the website;
- Links to relevant restricted access sites and virtual environments.

The visibility and understanding of the work carried out by the RCGs is increasingly consolidated for everyone, from data collectors to stakeholders.

A regularly updated Stakeholders' database improves the communication function among the RCGs' experts and the stakeholders' community.

Internal communication protocols and helpdesk make it easier for any newcomer to efficiently join, adopt responsibilities, and contribute to the RCGs objectives and work commitments.

The public description of the secretariat functions, operational working protocols and commitments will build trust and enhance the whole network transparency and accountability.

Agreement and commitment on RCG's secretariat

MS involved: ALL

At the 2022 RCG Decision meeting, all MS agreed on the principle of the implementation of a long-term secretariat in support of the work of all RCGs. This agreement led to continued support beyond the deadline of the SecWeb-project. Based on the experience gained, the extended support for regional coordination activities and the aim to secure a long-term, uninterrupted support, the agreement on the principle remains in place for 2025-2027.

General comment: Use this text box to provide information on other data collection activities that relate to your EMFAF operational programme and need to be included in the work plan and the annual report. Describe activities that are funded by the DCF but fulfil objectives under other EMFAF priorities, like marine knowledge, or activities funded by the DCF, but without a direct link to the EU MAP specific requirements or WP template tables, like freshwater fisheries. You can also include one-off specific studies for a particular end-user need that do not enter the regular data collection.

2 - Regional data base and estimation System (RDBES)

1. Aim of the data collection activity

To contribute to the development and operation of the Regional Database and Estimation System (RDBES)

2. Duration of the data collection activity

2025 – 2027

3. Methodology and expected outcomes of the data collection activity

The RDBES is a fundamental tool for regional coordination. The RDBES gathers in a single data base catch, effort and sampling data for biological variables and Protected, Endangered and Threatened Species (PETS) together with information on the sampling design. The RDBES is planned to replace both the existing ICES InterCatch and RDB database systems and has an important part to play in increasing transparency and improving the quality of stock assessment within ICES.

This transition to RDBES requires an important effort by countries:

- To adapt their internal processes to store and provide data in the RDBES data model;
- To calculate required estimates (discard weight, landed weight of species which are landed together, number at length, number at age) using the RDBES data model;

- To reproduce the data management which used to be done in InterCatch, using the estimates coming from the RDBES;
- To take advantage of the WK designed to give countries support in the transition
- To participate in the development of the RDBES through the core group and the different ICES WG and ISSGs giving feedback about different data types and end user needs (including catch and effort data, Small Scale Fisheries data, biological variables, Marine Recreational Fisheries (MRF), PETS, ...)

The RDBES developments planned for different data types, such as SSF, MRF and PETS are embedded in the respective textboxes.

Several ISSGs under the RCGs were established to use the data in the RDBES. These ISSG develop tools and (Shiny)apps to enhance the use of the RDBES by the RCGs. If ICES Assessment Working Groups, Workshops and other Working Groups want to use the developed tools & apps, ICES would need to take the responsibility to make them available, as well to support their use. This approach would be similar as it was the case with the RDBES & SmartDots.

Agreements reached at RCG 2023:

ICES to check data quality in relation to ICES work/stock assessment, also including non-EU countries

All MS ensure to be engaged in a workshop to set up the RDBES Data confidentiality and license. It is reminded that third countries need to be involved in this. Work planned to be finalized by the end of 2023.

Agreements and commitments on RDBES

MS involved: ALL

- RCGs to check data quality in relation to RCG work,
- All MS ensure to allocate experts to the relevant RDBES training sessions, workshops and working groups related to RCG work, in order to have the RDBES roadmap implemented.

General comment: Use this text box to provide information on other data collection activities that relate to your EMFAF operational programme and need to be included in the work plan and the annual report. Describe activities that are funded by the DCF but fulfil objectives under other EMFAF priorities, like marine knowledge, or activities funded by the DCF, but without a direct link to the EU MAP specific requirements or WP template tables, like freshwater fisheries. You can also include one-off specific studies for a particular end-user need that do not enter the regular data collection.

3 - Regional Coordination taking place in ISSGs and pan regional cooperation between RCGs

1. Aim of the data collection activity

To develop and propose coordinated actions in dedicated thematic areas during the Intersessional year for the RCG BALTIC

2. Duration of the data collection activity

2025 – 2027

3. Methodology and expected outcomes of the data collection activity

Regional cooperation is meant to improve the efficiency of data collection through sharing of expertise, data, best practices, knowledge and collaborative tasks. The RCGs bring together several Member States to coordinate planning and implementation of data collection. Their workplan across the year, from one

round of the annual technical meetings to the next, is supported with the setup of the Intersessional Subgroups.

In these subgroups the experts concentrate on specific Thematic Focus Areas, and sometimes they are pan-regional. During the relevant RCG's technical meetings, the different ISSGs present progress and hurdles encountered across the period and propose the update of their Terms of Reference with the tasks and targets for the new intersessional period for approval. The work performed by ISSG is essential for RCG technical meeting preparation and meeting discussions and Member States are requested to name experts in the different ISSG relevant to them and these experts should allocate a significant amount of time (on average 40 hours per ISSG) for carrying the work during the intersessional year.

The ISSG may change over the years as tasks are completed and new needs are coming up. An updated list of the ISSG operating every year under the umbrella of the RCG BALTIC can be found here: <https://www.fisheries-rcg.eu/rcg-baltic/>

A non-exhaustive list of the ISSG is presented below:

- ✓ ISSG End-user and RCG interaction
- ✓ ISSG RDB catch, effort and sampling overviews
- ✓ ISSG Metier and transversal variable issues
- ✓ ISSG Data Quality
- ✓ ISSG Electronic Monitoring Technologies
- ✓ ISSG Diadromous Fishes
- ✓ ISSG Surveys
- ✓ ISSG Optimized and Operational Regional Sampling Plans
- ✓ ISSG Optimisation of PETS bycatch sampling
- ✓ ISSG Evaluation of the data collected for the Small-Scale Fisheries at EU level
- ✓ ISSG Regionally coordinated stomach sampling
- ✓ ISSG Recreational fishery
- ✓ ISSG Development of Draft Regional Work Plan
- ✓ ISSG National Correspondents

Agreements and commitments on ISSGs and pan regional coordination

MS involved: ALL

- Member States agreed to name experts in the different ISSG relevant to them.
- The only ISSG requiring the presence of all MS is the ISSG on National Correspondents.
- Experts participating in an ISSG should allocate a significant amount of time (on average 40 hours per ISSG) for carrying the work during the intersessional year.

General comment: Use this text box to provide information on other data collection activities that relate to your EMFAF operational programme and need to be included in the work plan and the annual report. Describe activities that are funded by the DCF but fulfil objectives under other EMFAF priorities, like marine knowledge, or activities funded by the DCF, but without a direct link to the EU MAP specific requirements or WP template tables, like freshwater fisheries. You can also include one-off specific studies for a particular end-user need that do not enter the regular data collection.

4 - Smart Dots

1. Aim of the data collection activity

The SmartDots platform (<https://www.ices.dk/data/tools/Pages/smartdots.aspx>) facilitates exchanges, workshops and training events for age readings, maturity staging and ichthyoplankton analyses between labs based on images.

2. Duration of the data collection activity

2025 – 2027

3. Methodology and expected outcomes of the data collection activity

A set of software tools supports the user in managing all data of ICES biological reading (like age, maturity, larvae identification) workshops and exchanges. The workshop or exchange manager can manage the meta data related to workshops and exchanges, and the biological readers can carry out readings by annotating images provided by the workshop managers. All registered data are available in the connected reporting environment.

The SmartDots biological reading platform is an open source solution originally developed by ILVO (Flanders Research Institute for Agriculture, Fisheries and Food). All source code is publicly accessible. The development of SmartDots within ICES is guided by the working group on SmartDots Governance (WGSMART).

Agreements and commitments on Smart Dots

MS involved: ALL

- All MS ensure to be engaged in exchanges and workshops using SmartDots for the different biological variables
- All MS ensure that national experts are trained to use SmartDots. Tutorials are available on <https://www.youtube.com/channel/UCa4bjXo-eBDfW0cm1oEIWeQ/playlists>

General comment: Use this text box to provide information on other data collection activities that relate to your EMFAF operational programme and need to be included in the work plan and the annual report. Describe activities that are funded by the DCF but fulfil objectives under other EMFAF priorities, like marine knowledge, or activities funded by the DCF, but without a direct link to the EU MAP specific requirements or WP template tables, like freshwater fisheries. You can also include one-off specific studies for a particular end-user need that do not enter the regular data collection.

5 - Catch, effort and sampling overviews for RCG Technical Meeting

1. Aim of the data collection activity

Using the RDBES to develop baseline tools to be used internal by RCGs and to further developed in a RCG. The overviews should give living support to specific issues that are raised and discussed within RCGs, and for which decisions need to be taken (e.g. ISSG PETS request on the sampled metiers). It will be important that the specific needs of the RCGs are presented to this ISSG in order to be able to produce the overviews accordingly.

In order to enhance the RWP work, aggregated graphs (static) should be developed, as for example total landings in a region (all countries together), or number of fishes sampled per length or number of species sampled. This can give input to look into the regional re-distribution (and agreements) for biological

sampling.

2. Duration of the data collection activity

2025-2027

3. Methodology and expected outcomes of the data collection activity

- Production of baseline tools (R-scripts/shiny R) on an annual basis to support the RWP and RCG work. Using hereby the data from RDBES (awaiting the data confidentiality and license final outcome end of 2023)
- Production of graphs to establish regional sampling.

Agreements and commitments on Fisheries overviews

MS involved: ALL

- All MS ensure to upload the data in the RDBES to ensure that fisheries overviews for the relevant regions are as complete as possible.

SECTION 2: BIOLOGICAL DATA

Text Box 2.3: Diadromous species data collection in freshwater

General comment: This text box fulfils Article 5(2)(a), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004 and Chapter II point 2.1(b) and point 2.3 of the EU MAP Delegated Decision annex. Use this text box to give an overview of the methodology used to collect data from freshwater and inland commercial and recreational fisheries for salmon, sea trout and eel. Also include overview of data to be collected from research surveys on salmon, sea trout and eel in freshwater, and on eel in any relevant habitat including coastal waters.

Ongoing work on coordination of data collection of diadromous species under DCF and developments towards RWP are reflected in Text Box 1A.

There are currently no formal agreements or decisions for regional workplan for salmon, sea trout, or eel in place.

Agreements and commitments on the coordination of diadromous data collection in freshwater

MS involved: ALL

- No regional sampling is planned

Text Box 2.4: Recreational Fisheries

Region: Baltic

General comment: This text box fulfils Article 5(2)(a), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004 and Chapter II point 2.2 of the EU MAP Delegated Decision annex. Use this text box to give an overview of the methodology used to collect data on marine and freshwater recreational catches. For freshwater diadromous species, use Table and Text Box 2.3.

The regional coordination of data collection of recreational fisheries is under development in the RCG ISSG Recreational. The work relates to selection of species for the BALTIC region in addition to the mandatory species and the integration of the RDBES.

DCF mandatory species for catch data collection is limited to few species. However, based on the routine surveys carried out and on the pilot studies developed by several Member States under the DCF, it was identified that some of the target species for recreational fisheries are not the ones identified as mandatory.

ICES Working Group on Recreational Fisheries Surveys (WGRFS) expert group is being recommending to carry out multispecies surveys under the routine sampling surveys, considering that the increase on the workload and cost implication are low. Under this scenario, the RCG asked to the WGRFS to provide a priority list of species by ecoregion, to be considered to be incorporated into the National surveys in addition to the mandatory species.

A preliminary list of species by ecoregion was defined by the WGRFS. This list was developed following an approach similar to a Productivity Susceptibility Analysis (PSA) (e.g. McCully Phillips et al., 2015). The criteria considered under this methodology were: catchability, MRF biological importance, existing regulation, and socio-economic relevance.

The list and the methodology used were agreed by ICES WGRFS. The aim of this list is to recommend Member States, the inclusion of these species in the ecoregions identified in addition to the mandatory species, under the routine surveys.

No agreement yet on species list to be included in national sampling plan as supplementary species to be added to those listed in the EU-MAP Regulation Table 4. Work is ongoing and still under development.

Agreements and commitments on the integration of recreational fisheries data into the RDBES

MS involved: ALL

MS agreed that recreational fisheries data should be integrated into the RDBES. The developments needed for this were also prioritized by ICES WGRDBESGOV. In 2023 an official data call was launched by the WGRFS, with the aim of realizing a first full test about the incorporation of this data following the templates developed with this objective

Text Box 2.5: Sampling plan description for biological data

Region: Baltic

General Comment: This text box fulfils Article 5(2)(a) and (b), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004 and Chapter 2 point 2.1(a) of the EU MAP Delegated Decision annex. This text box complements Table 2.5.

Sampling plan: Small Pelagics in the Baltic

The regional coordination for sampling Small Pelagics in the Baltic is under development in the RCG Baltic ISSG on Small Pelagics. Additional information on sampling schemes: Annex 1.1 on Baltic SPF regional.

The regional coordination on small pelagic in the Baltic improves the coordination of sampling on different aspects. It aims to:

- On an annual basis evaluate national contributions to the regional sampling program and discuss improvements on how the landings of all MS can be sampled.

- Collaborate to meet end-users need

Agreements and commitments on a regional sampling plan for Small Pelagics in the Baltic

MS involved: ALL

- MS to follow the provisions of the sampling scheme stated in Annex 1.1 of RWP
- MS to allocate sampling effort as detailed in Table 2.5 in RWP and copy/ paste relevant rows into table 2.5 of their NWP 2025-2027
- MS to upload data to the RDBES under a common sampling program “Baltic SPF regional”
- MS to investigate the quality of the landings data in the mixed fisheries, by analysing control data, observer samples or other alternative sources of information and report back to the ISSG.
- MS to participate to WK on age readings every 3rd year conducted through SmartDot and relevant WKs.
- MS to have a common sampling program where active trawlers targeting small pelagic are selected on a probabilistic basis for sampling of the unsorted catches including documentation of refusal and non responses.
- MS to have a common protocol defining the minimum amount (3 kg / 50 fish) per sample, minimum 50 fish per species selected for ages and length measured (in semi cm).

Text Box 2.6: Research surveys at sea

Research survey: Baltic

General Comment: This text box fulfils Article 5(1)(b), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004 and Chapters I and II of the EU MAP Implementing Decision annex. It is intended to specify which research surveys at sea, as set out in Table 2 of the EU MAP Implementing Decision annex will be carried out. Member States shall specify whether the research survey is included in Table 2 of the EU MAP Implementing Decision annex or whether it is an additional survey.

The regional coordination of surveys is under development in the RCG ISSG Surveys. The work relates to presenting all the internationally coordinated surveys in the Baltic region with commonly agreed text and tables where planned days at sea are reflected. In this context, internationally coordinated surveys are those listed on the Commission Implementing Decision (EU) 2021/1168 of 27 april 2021 and conducted by more than one country.

2025 will be the first year when this RWP is implemented and MS refer to the internationally coordinated surveys in the RWP and add national specificities, if any, in their NWP 2025-2027.

Agreements and commitments on internationally coordinated research surveys at sea in the Baltic

MS involved: listed in each of the surveys

- Only surveys international coordinated are included in the RWP
- Surveys listed below are the ones relevant for the region and are to be conducted by the MS listed as participants
- The allocated effort by MS are given in Table 2.6

Baltic International Trawl Surveys – BITS_Q1

1. Objectives of the survey

The aim of the BITS surveys is to estimate cod recruitment indices, cod abundance and to follow the development of flounder and other flatfish populations in the different Sub-Divisions in the Baltic.

The survey is carried out February /March.

2. Description of the survey design and methods used in the survey for each type of data collection as listed in Table 2.6 for this specific survey

The survey is conducted using a TV3L demersal trawl at day-time. Each haul is sorted and all species are recorded, length measured and weighted. For target species biological parameters are collected on fish length, age, weight, sex and gonadal maturity. Additional sampling like stomach content on cod, isotope analysis on cod, sampling of parasites from cod liver is also undertaken and from each haul. Marine litter are registered. Hydrographical data are collected with a CTD in connection to the trawl hauls.

Details of the survey and sampling protocol is described in the survey manual:

<http://doi.org/10.17895/ices.pub.2883>

3. Description of the participating Member States

The participating EU Member States are Germany, Denmark, Lithuania, Latvia, Poland and Sweden.

4. Where applicable, provide more details on the type of participation and/or threshold agreement applied

Individual tasks to the survey participants (e. g coverage of certain areas in a certain timeframe) are coordinated by the WGBIFS.

No cost sharing agreement is in place for this survey.

General Comment: This text box fulfils Article 5(1)(b), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004 and Chapters I and II of the EU MAP Implementing Decision annex. It is intended to specify which research surveys at sea, as set out in Table 2 of the EU MAP Implementing Decision annex will be carried out. Member States shall specify whether the research survey is included in Table 2 of the EU MAP Implementing Decision annex or whether it is an additional survey.

Baltic International Trawl Surveys – BITS_Q4

1. Objectives of the survey

The aim of the BITS surveys is to estimate cod recruitment indices, cod abundance and to follow the development of flounder and other flatfish populations in the different Sub-Divisions in the Baltic.

The survey is conducted in October /November or December depending on area.

2. Description of the survey design and methods used in the survey for each type of data collection as listed in Table 2.6 for this specific survey

The survey is conducted using a TV3L demersal trawl at day-time. Each haul is sorted and all species are recorded, length measured and weighted. For target species biological parameters are collected on fish length, age, weight, sex and gonadal maturity. Additional sampling like stomach content on cod, isotope analysis on cod, sampling of parasites from cod liver is also undertaken and from each haul. Marine litter are registered. Hydrographical data are collected with a CTD in connection to the trawl hauls.

Details of the survey and sampling protocol is described in the survey manual:

<http://doi.org/10.17895/ices.pub.2883>

3. Description of the participating Member States

The participating EU Member States are Germany, Denmark, Estonia Lithuania. Latvia, Poland and Sweden.

4. Where applicable, provide more details on the type of participation and/or threshold agreement applied

Individual tasks to the survey participants (e. g coverage of certain areas in a certain timeframe) are coordinated by the WGBIFS.

No cost sharing agreement is in place for this survey.

General Comment: This text box fulfils Article 5(1)(b), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004 and Chapters I and II of the EU MAP Implementing Decision annex. It is intended to specify which research surveys at sea, as set out in Table 2 of the EU MAP Implementing Decision annex will be carried out. Member States shall specify whether the research survey is included in Table 2 of the EU MAP Implementing Decision annex or whether it is an additional survey.

Baltic International Acoustic Surveys – BIAS

1. Objectives of the survey

The aim of the survey is to provide abundance estimates of herring, sprat and pelagic cod in the Baltic Sea including Kattegat.

The survey is conducted in September-October.

2. Description of the survey design and methods used in the survey for each type of data collection as listed in Table 2.6 for this specific survey

The survey is collecting acoustic data and biological information. Approximately 2 hauls are made in each ICES rectangle. For each haul, all species are length measured onboard and parameters such as age, weight, and sex are analyzed on herring, sprat and cod. Gonadal maturity on herring is also registered.

Hydrographic data (temperature, salinity and oxygen) are sampled.

Details of the survey and sampling protocol is described in the survey manual:

<https://doi.org/10.17895/ices.pub.3368>

3. Description of the participating Member States

The participating EU Member States are: Estonia, Finland, Germany, Lithuania, Latvia, Poland, Sweden. Denmark is participating by sending staff.

4. Where applicable, provide more details on the type of participation and/or threshold agreement applied

Individual tasks to the survey participants (e. g coverage of certain areas in a certain timeframe) are coordinated by the WGBIFS.

Agreements have been made on share of personnel. See Table 1.3.

General Comment: This text box fulfils Article 5(1)(b), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004 and Chapters I and II of the EU MAP Implementing Decision annex. It is intended to specify which research surveys at sea, as set out in Table 2 of the EU MAP Implementing Decision annex will be carried out. Member States shall specify whether the research survey is included in Table 2 of the EU MAP Implementing Decision annex or whether it is an additional survey.

Sprat Acoustic Surveys – SPRAS

1. Objectives of the survey

The main aim of the SPRAS surveys is an estimation of the abundance indices of sprat *Sprattus sprattus* in the Baltic for stock assessment purposes.

The survey is conducted in May.

2. Description of the survey design and methods used in the survey for each type of data collection as listed in Table 2.6 for this specific survey

The survey is collecting acoustic data and biological information. Two hauls are made in each ICES rectangle. For each haul, all species are length measured on-board and parameters such as age, weight, and sex are analysed on sprat, herring and cod.

Details of the survey and sampling protocol is described in the survey manual:

<https://doi.org/10.17895/ices.pub.3368>

3. Description of the participating Member States

The participating EU Member States are: Estonia, Germany, Lithuania, Latvia, Poland, Sweden.

4. Where applicable, provide more details on the type of participation and/or threshold agreement applied

Individual tasks to the survey participants (e. g coverage of certain areas in a certain timeframe) are coordinated by the WGBIFS.

No cost sharing agreement is in place for this survey.

General Comment: This text box fulfils Article 5(1)(b), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004 and Chapters I and II of the EU MAP Implementing Decision annex. It is intended to specify which research surveys at sea, as set out in Table 2 of the EU MAP Implementing Decision annex will be carried out. Member States shall specify whether the research survey is included in Table 2 of the EU MAP Implementing Decision annex or whether it is an additional survey.

Gulf of Riga Acoustic Herring Survey (GRAHS)

1. Objectives of the survey

The aim of the survey is to obtain the fisheries-independent information for tuning analytical stock assessment models for Baltic herring in the Gulf of Riga.

The survey is conducted in July/August in order to cover the period after main spawning season when most of the stock has left the near-coast spawning grounds.

2. Description of the survey design and methods used in the survey for each type of data collection as listed in

Table 2.6 for this specific survey

Target data are biomass, weight and length distributions and length-weight-age-sex-maturity of Baltic herring, as well as hydrographic data (temperature, salinity and oxygen). The information obtained during the survey is used by the Baltic Fisheries Assessment Working Group of the ICES (WGBFAS).

Details of the survey and sampling protocol is described in the survey manual:

<https://doi.org/10.17895/ices.pub.3368>

3. Description of the participating Member States

The survey is carried out jointly by the Latvian and Estonian scientists on the chartered Latvian fishing vessel.

4. Where applicable, provide more details on the type of participation and/or threshold agreement applied

The surveys are coordinated and the results are discussed by the ICES WGBIFS annually.

Estonia and Latvia share the tasks of work and also the survey costs on this joint survey.

SECTION 3: FISHING ACTIVITY DATA

Text Box 3.1: Fishing activity variables data collection strategy

General comment: This text box fulfils Article 5 (2)(c), Article 6 (3)(a), (b) and (c) of Regulation (EU) 2017/1004 and Chapter II point 3.1 of the EU MAP Delegated Decision annex. It is intended to describe the method used to derive estimates on representative samples where data are not to be recorded under the Control Regulation (EC) No 1224/2009 or where data collected under Regulation (EC) No 1224/2009 are not at the right aggregation level for the intended scientific use. Text Box 3.1 should be filled only in case complementary data collection is planned

The regional coordination on fisheries activities variables is under development in the RCG ISSG on Métier and transversal variables issues and RCG ISSG on Small Scale Fisheries. The work relates to agreeing on methods to process fisheries activities data that are collected through the control regulation and other national legislation.

Agreements and commitments on a common strategy for data collection on Fishing activity

Transversal variables for all fisheries

- MS agreed to use the methods for assigning métier codes to transversal data: Common standardized/homogenized best practices, R script and reference tables used to assign métiers have been made available on the RCG GitHub <https://github.com/ices-eg/RCGs/tree/master/Metiers>.
- MS agreed to follow general principles for effort calculation for vessels carrying logbooks (more than 10 meters length vessels), as developed in the 2nd Workshop on Transversal Variables in 2016.

Small-Scale Fisheries (SSF) effort reporting

When reporting SSF vessels (less than 10 meters length) fishing effort for data calls, the estimates should be calculated keeping in line as far as possible with the general principles elaborated in 2016. The commonly used assumption that SSF have generally a daily activity and that therefore the following assumption could be considered: 1 sales note = 1 fishing trip = 1 day at sea = 1 fishing day as far as no other information contradict it.

SECTION 4: IMPACT OF FISHERIES ON MARINE BIOLOGICAL RESOURCES

Text Box 4.2: Incidental catches of sensitive species

Region: Baltic

General Comment: This text box fulfils Article 5(2)(a) and (b), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004 and Chapter 2 point 4.1 of the EU-MAP Delegated Decision annex. This text box complements Table 2.5.

The regional coordination on Incidental catches of sensitive species is under development in the RCG ISSG on PETS (Protected, Endangered and Threatened Species). The work relates to the development of a regional list of priority PET species the incorporation of PETS data into the RDBES, the assessment of the relative risk of bycatch for the different gear types and/or métiers and agreeing on common methods for data collection.

The work is ongoing and will be developed further in 2023/2024.

Incidental catches of sensitive species - List of PET Species provided by ICES

List of PET Species has been developed by ICES on a region-wide level

A shorter list of species is specifically required in ICES datacall (https://ices-library.figshare.com/articles/report/WGBYC_Data_call_2022_Bycatch_of_protected_species_for_ICES_advisory_work/19745809/2?file=35156167)

These species lists will be used by the RCGs to prioritize future regional work plans regarding PETS sampling programmes. These species lists will be subjected to periodic review and update.

Agreement and commitment on a Regional list of priority PET species

MS involved: ALL

MS to ensure that the species listed in the documents referred above are recorded when encountered during the sampling activities and given high priority in case concurrent sampling cannot be implemented.

General Comment: This text box fulfils Article 5(2)(a) and (b), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004 and Chapter 2 point 4.1 of the EU-MAP Delegated Decision annex. This text box complements Table 2.5.

RDBES incorporation of bycatch data

The regional coordination of data collection of PETS species is under development in the RCG ISSG on PETS. The work relates to the incorporation of bycatch data into the RDBES.

WGBYC members have worked with the RDBES core group over the last years to make sure some formats were suitable for bycatch data (ICES WGBYC 2023). The results of the tests carried out will allow to assess the incorporation of all PETS bycatch related data into the RDBES, essential for the regional coordination of potential regional sampling plans.

Agreements and commitments on incorporation of bycatch data into the RDBES

MS involved: ALL

- Data format has been agreed
- All MS to upload PETS bycatch related data into the RDBES, essential for the regional coordination of potential regional sampling plans.

It is to be noted that the second bullet point is conditional to data uploading tests which will be carried out together with ISSG PETS, WGBYC and RDBESGOV in 2023/2024.

General Comment: This text box fulfils Article 5(2)(a) and (b), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004 and Chapter 2 point 4.1 of the EU-MAP Delegated Decision annex. This text box complements Table 2.5.

Identification of high-risk fisheries

The work ongoing in ICES WGBYC and PETSAMP series of workshops makes it possible to identify the high-risk fisheries from PETS bycatch, including their effort. The methodology used and the available data also provides information on the spatial coverage of the fisheries, and the abundance and overlap of PET species in the

ecoregion. The information obtained through this assessment needs to be processed further by ISSG on PETS to allow the RCGs to identify which are the main fisheries that should be sampled at regional level based on the needs of the main end-users.

Agreements and commitments on the Identification of high-risk fisheries

- None

ANNEX 1.1 - QUALITY REPORT FOR BIOLOGICAL DATA SAMPLING SCHEME

The quality report fulfils Article 6(3)(d) of Regulation (EU) 2017/1004. This document is intended to specify data to be collected under Chapter II, point 2 of the EU MAP Delegated Decision annex: Biological data on exploited biological resources caught by Union commercial and recreational fisheries.

Use this document to state whether documentation in the data collection process (design, sampling implementation, data capture, data storage, sample storage and data processing) exists and identify where this documentation can be found. Provide short descriptions where indicated, even if the documentation can be found in English. Names of sampling schemes and strata shall be identical to those in Tables 2.2, 2.3, 2.4, 2.5, 2.6 and 4.1 of the WP/AR. For quality information on scientific surveys, use the survey acronym as a sampling scheme identifier. For mandatory surveys, refer to Table 1 of the EU MAP Implementing Decision annex, see also MasterCodeList 'Mandatory survey at sea'.

Draft quality document for Baltic SPF regional pilot

MS: DNK, DEU, EST, FIN, LVA, LTU, POL, SWE
Region: Baltic Sea
Sampling scheme identifier: Baltic SPF regional
Sampling scheme type: Commercial fishing trip
Observation type: Not coordinated
Time period of validity: 2025 fully implemented
Short description (max 100 words): This is a regional sampling program to collect length and age samples from the mixed sprat and herring fishery conducted by commercial trawlers operating in the Baltic Sea (ICES subdivisions 27.3.d.22 to 27.3.d.29 and 27.3.d.32) using self-sampling, or sampling on shore. The aim is to estimate length-and age composition of catches and mean weight of fish by length and age, caught by commercial trawlers by quarter and subdivision. The sampling program was introduced as a trial in 2022 to test what and how much it is possible to standardize regional sampling. In 2025 the sampling will be fully implemented as a RWP. In most countries the program has been conducted in parallel to national sampling programs covering other parts of the stocks (ex. Gillnets). The program is still under development and at the moment some aspects of the sampling (e.g., observation type, sample selection method, sampling frequency) vary between

countries, mainly due to practicalities; but the countries have agreed on standardized protocols for the sub-sampling of biological parameters and a substantial number of other aspects (e.g., coordinated estimation, upload to RDBES, etc).

Description of the population

Population targeted:

Pelagic trawlers participating in the herring and sprat fisheries of Subareas 27.3 – the sampling area is the Baltic Sea from ICES subdivision 22 to subdivisions 29 and 32.

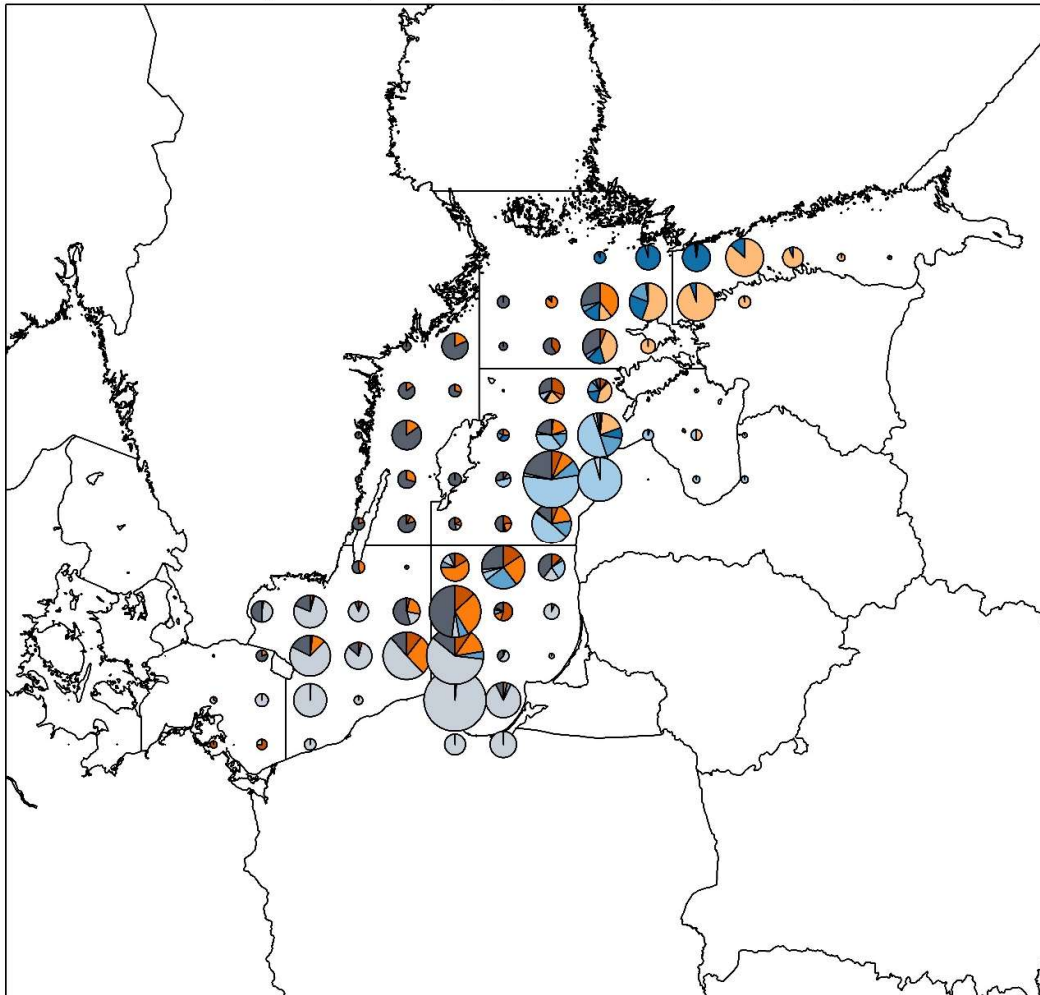
All herring and sprat commercially caught in the Baltic Sea for which estimates of length or age composition are required

Population sampled:

The scheme samples fishing trips from the most important trawlers participating in the small-pelagic fisheries for herring and sprat in the Baltic.

In principle several herring stocks and the one sprat stock in the Baltic can be sampled in this sampling program. However, in reality not all MS fleets are covering all the areas, as is indicated in figure 1 and 2.

Sprattus sprattus, landWt per FlagCountry and rect, 2023

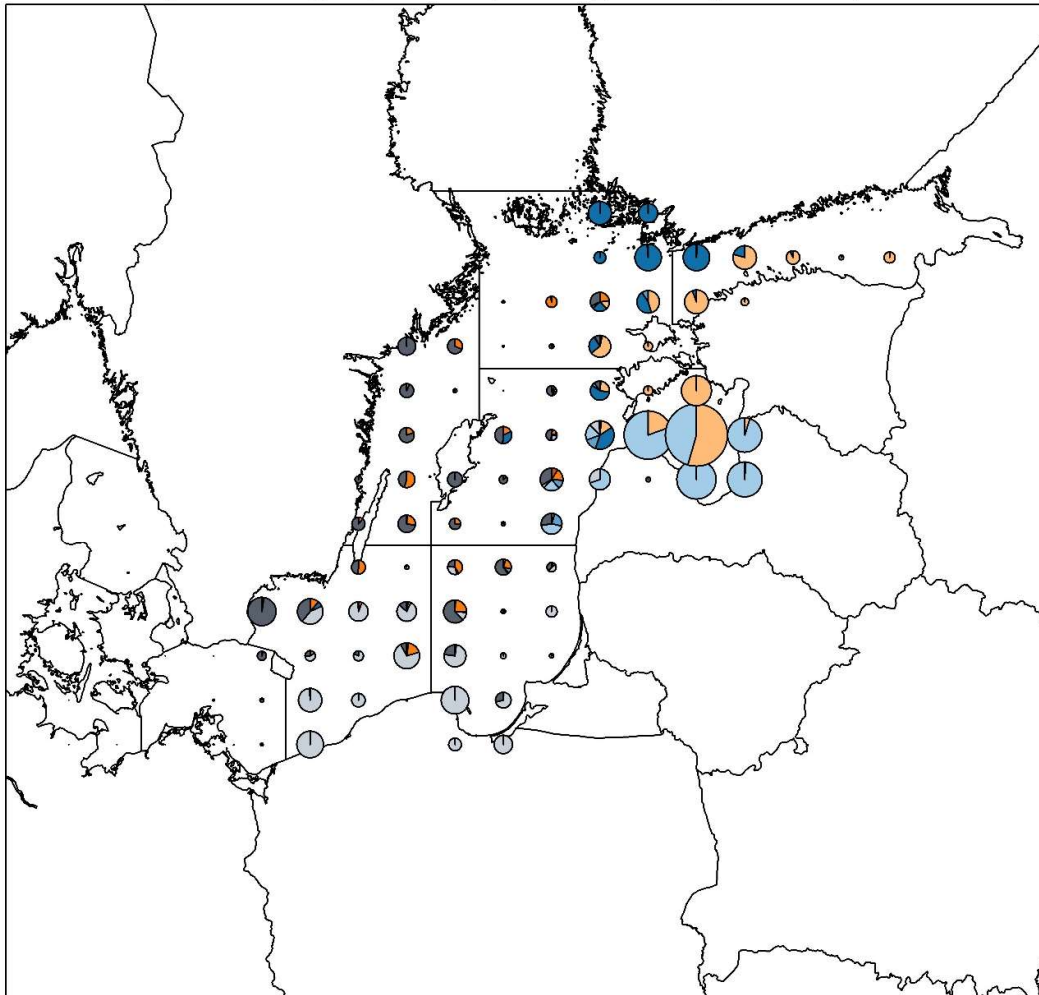


DE DK EE
FI LT LV
PL SE

Only including rect's accounting for 100 pct. of total landWt, 0.1% of total landWt missing info about position and therefore not shown

Fig. 1. Catch of sprat in the Baltic in 2023 by MS. Data uploaded in RDB in 2024

Clupea harengus, landWt per FlagCountry and rect, 2023



DE DK EE FI LT LV PL SE

Only including rect's accounting for 100 pct. of total landWt, 0.2% of total landWt missing info about position and therefore not shown

Fig. 2. Catch of herring in the Baltic in 2023 by MS. Data uploaded in RDB in 2024

Table 1. Baltic stocks covered by MS participating in the Baltic SPF regional program.

Stock	MS	Area covered by the RWP
her.27.20-24	DEU/DNK/POL/SWE	22-24
her.27.25-2932	DNK/EST/FIN/ LTU/LVA/POL/SWE	25-2932
her.27.28.1	EST/LVA	28.1
spr.27.22-32	DNK/EST/FIN/LTU/LVA/POL/SWE	22-32

Russia is presently fishing 15% of the total sprat catch and 25% of total herring catch in SDs 25-29,32. However, there are no information on sampling strategy and no data is delivered to ICES.

With some national adaptations, the vessel included in RWP are trawlers fishing for sprat and herring in the Baltic.

Table 2. Numbers of trawlers participating in the RWP based on active vessels in 2023

Country	Number of vessels included in the sampling frame (from 2023)
DEU	22
DNK	6
EST	22
FIN	23
LTU	7
LVA	39
POL	69
SWE	15

In general (with some national adaptations), vessels having low contribution to herring and sprat landings are not covered by this regional programme. These include some small trawlers or passive gears such as gillnetters landing herring. The following table gives their identifiers in the 2024-2025 national sampling programmes – details can be found in the relevant national workplan <https://datacollection.jrc.ec.europa.eu/wp-np-ar>

- If national sampling program are sampling the same stocks but in other programs these can be included here. (small scale fisheries – gillnettes / trap nets ect.) use Sampling scheme/frame identifier as it is national work plan Table 2.5

Table 3. National sampling program identifier, covering same stock but other programs.

MS	Sampling scheme identifier	Sampling frame identifier
DEU	DEU_Baltic_SPR	Baltic Sprat
DEU	DEU_Baltic_HER	Baltic herring passive 2224
DEU	DEU_Baltic_HER	Baltic herring active 2224
DNK	DNK industrial sampling	Sprat
EST	OnShoreCommercialCoastal	SB
FIN	On shore sampling program targeting pelagic trawl fishery of herring and sprat	OTM_SPF
LTU	Scientific observer on shore	Small scale gillnetters (BS-SSF-GN)
LTU	commercial landings selected species (SO-SHORE-COM-SS)*	Small scale trap-netters (BS-SSF-TN)
LVA	SB-1(SelfAtSea)	SB-1
LVA	SB-2 (SelfAtSea)	SB-2
POL	Baltic at sea	BAL VL0010
		BAL VL1012
		BAL VL1218
		BAL VL1824
		BAL VL2440
	Baltic on shore	BAL VL0010
		BAL VL1012
		BAL VL1218
		BAL VL1824
		BAL VL2440
SWE	CommSelfAtSea - Selected species/stocks	Passive SmallPelagics HER - 27.3.b-d.23-24

Based on 2023 national data the Table 4 gives an overview of the volumes of herring and sprat landings of by MS that are covered by the present regional sampling plan and those that are not covered by it within the stocks included in the RWP, i.e., they are to be covered by the national plans.

(only the part that is covered by the RWP – areas and quarters)

Table 4. Weight of catches (herring and sprat combined) in 2023 by MS.

	In regional plan (tons)	Outside regional plan (tons)	% in plan
DEU	15153	192	99%
DNK	27 799	1275	96%
EST	45403	9328	83%
FIN	25495	917	97%
LTU	12699	9959	59% (99% of SPR and 12.8% of HER)
LVA	57429	1641	97%
POL	66993	16394	80%
SWE	55703	13133	81%
TOTAL			

Stratification:

The program is stratified into national lists of vessels. The use of national stratification aims to achieve good spatial coverage over the broad geographical range of the fisheries as well as adequate number of samples and representation of the vast majority of commercial landings. Detailed information on strata by MS can be found in table 2.5. Presently there is no consensus with regards to possible changes to effort allocation.

Sampling design and protocols

Regional level of ambition: 3 - “*Common monitoring strategy*”

Present regional level: 1 - “*Coordinated data reporting*”

Sampling design description:

Brief description of the sampling design

- Stratified multi-stage cluster sampling design
- Active trawlers targeting the sprat/herring fishery.
- The sampling frame is stratified into national vessel lists
- Sampling units
 - Primary sampling unit (PSU): vessel

- Secondary sampling unit (SSU): trips
- Tertiary sampling unit (TSU): Nation specific (landing events/ haul)
- Varies by MS with regards to observation type, sample selection method and sampling frequency but in general:
 - Minimum sampling size (3kg)
 - Minimum number of fish per sample for biological analysis (50/ species)
 - Vessels outside the regional program are covered by national program (table 3.)

Biological sampling protocols:

- Minimum 3 kg random sample is provided from a trip with information on the given haul the sample has been taken from.
- Sample is sorted into species (mainly herring and sprat but other species can be present).
- Random sample of minimum 50 individuals by species is selected for length, weight and age analysis. In some countries, the selection is conducted by measuring the weight of 10 individuals and add fish until the weight of the 10 individuals x 5 has been reach. The length is measured in semi-centimetre.
- The same individuals selected for length are selected for weight measurement. The weight is measured non-stratified and in grams.
- The same individuals selected for length are selected for age readings (also non-stratified). In some countries, a specific number (maximum 5, 10 or 15) of individuals from the length class is taken for age reading.
- It is not mandatory in the regional sampling program to collect other biological parameters than, length, weight and age. However, some MS collect information on sex, maturity, stomach fullness, parasites and genetics of individuals.

Is the sampling design compliant with the 4S principle?

Yes, although this varies by MS

Regional coordination:

Yes

Link to sampling design documentation:

Some additional information:

Danish sampling program was before 2020 an ad hoc sampling program where control agency sampled vessels based on a quota system to cover the main part of the landings. As the main part of the Danish landings in the Baltic are conducted in a few but very large trips

this was not the optimal ways of sampling. Since 2020 Denmark has sampled the small pelagic in the Baltic according to the new regional design. This indicates that all larger trawlers ≥ 24 meters are included if they have more than 85% sprat/herring landings. These vessels are all asked to take 1 sample per trip. Further, an additional on-shore sampling program has been set in place covering all vessel length. Not all sampling sites are cooperating and refusal rates on landing sites are therefore included. Further species misreporting has occurred back in time, mainly with over reporting of herring and underreporting of sprat. This was partly compensated for in the data delivery for stock assessment as Denmark for some years used corrected data based on control samples used by month and area on the fleet. At the benchmark 2023 (WKBBALTPEL) the species correction was systematically corrected back in time and an updated time series for both sprat and herring were uploaded to ICES. In April 2020 a new and very detailed control system has been implemented for all industrial landings in Denmark with a very large sampling intensity (14 10 kg samples per landing for sprat and herring in the Baltic) conducted on every landing, this has improved the quality of the data.

Latvia sampling program. Each year the Fisheries department of the Latvian Ministry of Agriculture prepares the list of vessels and companies that have the fishing permit in the Baltic Sea and the Gulf of Riga. The vessel list consists of information on vessel name, fish species and fishing subdivisions. The vessel list is sorted by fishing type and subdivision to create three segments:

- Pelagic fishery in the Central Baltic (34 vessels in 2021);
- Pelagic fishery in the Gulf of Riga (22 vessels in 2021);
- Demersal fishery (31 vessels in 2021).

Each vessel can be included in one or several segments. Not all vessels that have fishing rights participate in the actual fishery. In the pelagic fishery, six biological samples are collected each month – three samples from the pelagic fishery in the Central Baltic and three samples from the pelagic fishery in the Gulf of Riga. For each segment, fishing vessels are randomly selected from the initial vessel list using Simple Random Sampling Without Replacement (SRSWOR). After the vessel selection, it is checked whether the vessel is active and participates in the fishery of interest. If the vessel is active (according to electronic logbooks), a call is made to the company owner or other contact person to arrange the biological sample or observer participation for the next trip. If the vessel doesn't participate in the fishery of interest or doesn't fish for other reasons, the next vessel is selected according to the same principles. In case when the random selection of vessels shows the vessel that was already selected in a given quarter, this vessel is ignored and the procedure is repeated. The vessel selection process is documented to ensure the traceability of the process.

The Swedish sampling program was before 2020 a sampling program that relied on quota sample to obtain samples from each subdivision, quarter and fishery type (consumption, industrial). Samples were obtained from control and market sources. The lack of scientific control over the sampling and uncertainty in the raising totals (possible bias in species position of fleet level totals; possible bias in totals considered as consumption and industrial),

increased the risk of bias and imprecision of final estimates. Since 2020 Sweden has sampled the small pelagic in the Baltic according to the new regional design that is based on probabilistic vessel and trip selection and self-sampling. The pre 2020 sampling design remains in place but is only used as a last-resort (back-up) strategy to secure data if industry refusals happen to threaten data collection.

Estonia sampling. Can be considered as an ad hoc sampling program until 2021 which aims to collect samples from all active trawlers from each subdivision during active fishing period. During the pilot program in 2020 and 2021 probabilistic sampling scheme was tried (probabilistic selection of vessel), however due to the nuance rich fisheries behaviour it was difficult to guarantee that all subdivisions were covered with enough samples. The difficulty laid in the fact that it was hard to predict which vessels were going to fish in which area/stock, especially as subdivision 28.1 (Gulf of Riga) comprises of a separate herring stock. Same vessels can fish both in open sea or in Gulf of Riga, and the fishing location is determined by many variables. To achieving probabilistic vessel selection, the vessel selection is done when the sampling day is chosen and known, which also allows the knowledge on the vessel that are active that time. Therefore, the probabilistic vessel selection works on a smaller vessel list (vessels active during selected sampling day), which achieves that all SD-s are sampled (especially Gulf of Riga).

German sampling program. The declining number of vessels in the German pelagic fishing fleets and more automated catch handling processes onboard led to a switch from observer trips to self-sampling in the last few years. Fishermen are providing mixed catch samples following an agreed sampling protocol onboard. Germany is collecting around 20-25 catch samples per year from the relevant fleets, where one sample contains around 50kg of fish. Neither the vessels nor the sampling time however are chosen randomly. Sprat samples are provided by 1-2 trawler, herring is provided by less than 10 trawler that are usually pair-trawling in the main herring distribution areas, thus missing smaller herring populations and fishing areas. Sampling times are fixed to two times per week, but extra samples might be added opportunistically.

Polish sampling program. The sampling scheme aims to collect sprat and herring to estimate length-composition, numbers at age, and mean weight at age of commercial catches. The target population consists of vessels active at least once in the period January-December in 2023, were using OTM, had total landings 10t minimum, were targeting sprat or herring (over 95%) and have length above 17.5m. The primary sampling unit applied in the sampling program is vessel*trip. The list of vessels is used as a proxy to select a trip because the list of trips is not known in advance. In total 80 vessels will be selected for 1 year case study (30 or 10 per quarter). This vessels' list is a proxy for selecting the PSUs. Each month of the sampling a coordinator calls the contact persons from the selected vessels and ask for the sample from the next trip. A coordinator calls the selected vessel's contact person five times a week maximum. The calls are to be made when the weather forecast is good, and when the staff is available to pick up the sample from the harbour. All contacts are recorded including refusals. The vessel which is definitely not willing to

cooperate is blacklisted for a period of 1 year. A coordinator asks for a sample from the next trip. The sample should be taken from unsorted catch from the first haul.

Lithuania sampling program. Selection procedure: direct contact with vessel owner to discuss possibility of accepting of observer. 0 (zero) landings in Lithuania, so only sampling at sea possible. Embarking and disembarking of observer in the ports out of Lithuania, therefore logistics (observers travelling) was main limitation for conducting the sampling. Due to travel restrictions in 2020 none of the vessel was selected for sampling. Number of vessels fishing for small pelagic is very small (in 2021 only 13 and only 5 of them have made landings in Lithuania). It makes sampling probability very unequal. Most sprat is landed in Denmark, so samples were collected by Danish observers according to the agreement. Since 2021 this agreement started to be replaced by coordinated actions in the framework of this pilot study.

Only landings of herring and sprat for human consumption are sampled in Lithuania. These samples were from trawls with mesh size more than 32 mm. However, most majority of sprat and significant part of herring are landing for industrial purposes out of Lithuania. These landings are from trawls with mesh size 16 -20 mm. Due to it, data on length distribution collected from landings in Lithuania may be different from average total.

Target population is midwater trawlers targeting sprat and/or herring. The sampling scheme for herring caught by small scale coastal fleet is running in parallel.

Finnish sampling program. Finnish sampling is based on on-shore sampling program targeting pelagic trawl fishery of herring and sprat. The stocks for sampling are Central Baltic Herring (SD 25-29, 32) and Gulf of Bothnia herring (Bothnian Sea Herring (SD 30) and Bothnian Bay Herring (SD 31)) – the latter two have always belonged to same management unit and to same assessment unit since 2017 as well as the Baltic Sprat stock. Biological data are collected mostly from sampling of commercial trawl fisheries (OTM_SPF and PTM_SPF). Sampling of Herring (and sprat) is based on length stratified sub-sampling scheme, where target number of specimen for biological data is 1/ 0.5 cm length-class/sampled trip (the number of specimens is increased for maturity sampling in spring before spawning time). The herring stock-related biological data (i.e. age-length relation) is used also with the trap-net length distributions – and vice versa.

Finland has started the statistically sound sampling scheme (4S) from the trawl fisheries targeting herring and sprat, where it has been in force from the beginning of year 2019. The selection of PSU for herring (and sprat) is to do random sampling from a draw list, where probability of a fishing unit to be selected for sampling in certain SD and quarter is weighted by its previous years' combined catch of herring and sprat in the same SD and Q. During each quarter the sampling personnel go through the draw list in free order, recording all relevant info (sampling, refusal, out of area, etc.) of the interaction into our sampling database SUOMU, which also has the lottery function needed in the process. Additional lottery draw of PSU's will be done to reach the sampling target if there is a deficit.

Risks and mitigations for the regional sampling program

Different local issues have been presented from different MS.

For Lithuania landing sites are often abroad and not easily accessible for observers, this has given some challenges in respect to receive the samples. Further it has not been possible to ask the fishermen to bring the sample back to the home harbour.

In Finland the self-sampling was not possible due to the storing issues onboard the vessels which cause the sample quality to be very poor. Therefore, the Finnish sampling program has been slightly changed to have a similar selection procedure but the sample is taken from the unsorted landings on shore.

In Estonia the self-sampling is also not possible due to storing issues onboard the vessels and harbours. In addition, some vessel frequently use abroad landings sites from where it's a challenge to receive a sample.

In Sweden an initial reduction in sampling of catches for consumption was observed when the regional program was first implemented. This reduction partially related to the sampling frame being dominated by large vessels that fished essentially for industrial purposes. In 2022-2024 national strata were added to improve coverage of smaller vessels in the target area that fish for consumption. Sweden also has available in its national plan back-up ad-hoc strata that can be activate if needed (e.g., in case of industrial refusals).

In Poland in some cases landings take place abroad, and it is impossible to collect the sample from these landings.

A brief summary of the existing time-series:

Time period	Description Denmark
1994 - 2019	Ad Hoc Sampling (NPAH)
2020 – present	Simple Random Sampling Without Replacement (SRSWOR)
	Description Estonia
- 2021	Ad Hoc Sampling (NPAH)
2022 -present	Simple Random Sampling With Replacement (SRSWR)
	Description Latvia
-2016	Ad Hoc Sampling (NPAH)
2017-present	Simple Random Sampling Without Replacement (SRSWOR)
	Description Finland
1974-1997	Simple random sampling on ad hoc basis
1998-2019	Length-stratified random(quota-) sampling on ad hoc basis
2019-2020	Length-stratified random(quota-) sampling on probabilistic basis
2021-present	Simple random sampling on probabilistic basis
	Description Germany
1992 - present	Non-Probabilistic Judgement Sampling (NPJS)
	Description Lithuania
2004-2016	Ad Hoc Sampling (NPAH)
2017-present	Simple Random Sampling With Replacement (SRSWR)*
	Description Poland
2004-2016	Ad Hoc Sampling (NPAH)
2017-present	Simple Random Sampling With Replacement (SRSWR)
Time period	Description Sweden (more details in ICES WKBBALPEL report, 2023)

- 1976	Documentation not yet available
1977 – 2000	Ad Hoc Sampling (NPAH) (length stratified, sorted landings)
2001 – 2019	Ad Hoc Sampling (NPAH) (not length stratified, unsorted landings)
2020 – present	Simple Random Sampling Without Replacement (SRSWOR)

Further information

More information on this regional sampling program can be found in the 2021 and 2022 RCG reports:

RCG NANSEA RCG Baltic 2022. Regional Coordination Group North Atlantic, North Sea & Eastern Arctic and Regional Coordination Group Baltic. 2022. Part I Report, 101 pgs. Part II Decisions and Recommendations, 13 pgs. Part III, Intersessional Subgroup (ISSG) 2021-2022 Reports, 159 pgs.
<https://datacollection.jrc.ec.europa.eu/docs/rcg>

RCG NA NS&EA RCG Baltic 2021. Regional Coordination Group North Atlantic, North Sea & Eastern Arctic and Regional Coordination Group Baltic. 2021. Part I Report, 78 pgs. Part II Decisions and Recommendations, 16 pgs. Part III, Intersessional Subgroup (ISSG) 2020-2021 Reports, 350 pgs.
<https://datacollection.jrc.ec.europa.eu/docs/rcg>

Compliance with international recommendations:

Yes

Sampling implementation

Regional level of ambition: 3 - “*Common monitoring strategy*”

Present regional level: 1 - “*Coordinated data reporting*”

Recording of refusal rate:

Yes

Refusals and other types of non-responses are recorded at vessel level

Monitoring of sampling progress within the sampling year:

Routine follow-up meetings between MS are organized minimum twice a year. At these meetings the sampling protocols, age reading workshop, species misreporting etc. are discussed.

Data capture																																															
<p>Regional level of ambition: 1 - “<i>Coordinated data reporting</i>”</p> <p>Present regional level: 0 - “<i>No coordination or not relevant</i>”</p> <p>Means of data capture:</p> <p>Presently not regionally coordinated</p> <p>Data capture documentation:</p> <p>Presently not regionally coordinated</p> <p>Quality checks documentation:</p> <p>Presently not coordinated, however is planned to be part of the coordination. The BioDataQualityTFA could be used as a common documentation.</p> <p>Regular international age reading workshops are held but presently no other international data checks are conducted.</p>																																															
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<p>Regional level of ambition: 4 - “<i>Joint data collection</i>”</p> <p>Present regional level: 2 - “<i>Agreed guidelines</i>”</p> <p>National database:</p> <table border="1"> <thead> <tr> <th>Database name</th> <th>Location (e.g. host institute)</th> <th>Format (database / spreadsheet)</th> <th>Years of data stored</th> </tr> </thead> <tbody> <tr> <td>Fiskeline</td> <td>DTU Aqua</td> <td>database</td> <td>1990-present</td> </tr> <tr> <td>Fiskdata 2</td> <td>SLU Aqua</td> <td>database</td> <td>1985-present</td> </tr> <tr> <td>NPZDR</td> <td>NMFRI (MIR)</td> <td>database</td> <td>2004-present</td> </tr> <tr> <td>DMAR-01</td> <td>Thünen-OF</td> <td>database</td> <td>2002-present</td> </tr> <tr> <td>SPMAFI (sprat) HeMaFI (herring)</td> <td>Thünen-OF</td> <td>database</td> <td>2001-1992</td> </tr> <tr> <td>BIODATA</td> <td>BIOR</td> <td>database</td> <td>2003-present</td> </tr> <tr> <td>SUOMU</td> <td>LUKE</td> <td>database</td> <td>2009-present</td> </tr> <tr> <td></td> <td>EMI-UT</td> <td>database</td> <td>2009-present</td> </tr> <tr> <td>ZDIS</td> <td>Fisheries Service (LTU)</td> <td>database</td> <td>2010- present (effort and landings)</td> </tr> <tr> <td>KOPGALIS DRP</td> <td>KU MRI (LTU)</td> <td>CSV and Rdata</td> <td>2017 – present (samples of biological data)</td> </tr> </tbody> </table>				Database name	Location (e.g. host institute)	Format (database / spreadsheet)	Years of data stored	Fiskeline	DTU Aqua	database	1990-present	Fiskdata 2	SLU Aqua	database	1985-present	NPZDR	NMFRI (MIR)	database	2004-present	DMAR-01	Thünen-OF	database	2002-present	SPMAFI (sprat) HeMaFI (herring)	Thünen-OF	database	2001-1992	BIODATA	BIOR	database	2003-present	SUOMU	LUKE	database	2009-present		EMI-UT	database	2009-present	ZDIS	Fisheries Service (LTU)	database	2010- present (effort and landings)	KOPGALIS DRP	KU MRI (LTU)	CSV and Rdata	2017 – present (samples of biological data)
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International database:

Small pelagic scheme targeting the herring and sprat fisheries: RDB/RDBES at ICES uploaded as common name “**Baltic SPF regional**” to the RDBES

Database name	Location (e.g. host institute)	Format (database / spreadsheet)	Years of data stored
RDBES	ICES	database	2021-present

(*) database is undergoing final tests with data deletions occurring before updates

Quality checks and data validation documentation:

Common documentation and agreement on relevant national data checks based on RDBES format. (RCG/ / ICES) will be developed

Sample storage

Regional level of ambition: 0 - “*No coordination or not relevant*”

Present regional level: 0 - “*No coordination or not relevant*”

Storage description:

Presently not regionally coordinated

Sample analysis:

Presently not regionally coordinated

Additional information:**Data processing**

Regional level of ambition: 4 - “*Joint data collection*”

Present regional level: 1 - “*Coordinated data reporting*”

Evaluation of data accuracy (bias and precision):

Scripts will be developed based on the RDBES data format that make use of common functions being developed by groups such as the ICES WGRDBES-EST.

Age reading comparison. It has been agreed to quality ensure the age reading on a regional level regular and as a minimum before benchmarks. Dates for last regional age reading exercise via SmartDots are indicated in the table per stock

Stock	year	MS
her.27.20-24	2018	Reported in WGBIOP 2018, Annex 3, p 46-47
her.27.25-2932	2022	DNK, POL, SWE, GER, LVA, LTU, EST & FIN
her.27.28	2015	WGBIOP 2017 Report, Annex 5, p 75
her.27.3031	2019	SWE, FIN
spr.27.22-32	2022	DNK, POL, SWE, GER, LVA, LTU, EST

Editing and imputation methods:

A design-based estimator is under development. Documentation will be available in RDBES scripts and outputs when that system is in production.

Quality document associated to a dataset:

Documentation will be available in RDBES scripts and outputs when that system is in production.

Link to estimation documentation;

Documentation on estimation will be made available after it has been coordinated.

Validation of the final dataset:

Final validation takes place when data is compiled at ICES stock coordination level.