Ministry of Agriculture of the Republic of Lithuania

Fisheries Service under the Ministry of Agriculture of the Republic of Lithuania

Agricultural Information and Rural Business Centre

Klaipedos university

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

Lithuanian Work Plan for data collection in the fisheries and aquaculture sectors

2025-2027

Version [4] – 2024

Vilnius,

2024-12-13

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Data collection framework at national level

General comment: Use this text box to describe how data collection is organised in your Member State (institutions involved, contact information) and in which regional coordination groups (RCG) your Member State participates.

Lithuania will carry out the National Fisheries Data Collection Programme in 2025-2027 which will be compliant with the Data Collection Framework (DCF) according to Council Regulation EC 2017/1004. The Work plan covers fisheries, biological and economical sampling activities in the next three years collected within the Lithuanian National Programme for the Collection of Fisheries Data (NP). No methodological changes have been introduced in Work plan.

The Ministry of Agriculture of the Republic of Lithuania (Gedimino av. 19, LT-01113 Vilnius, Lithuania) acts as the National Correspondent and is responsible for the overall coordination of NP and for data submission to the European Commission.

National Correspondent: Vilda Griūnienė, Head of Fisheries policy unit, Ministry of Agriculture of the Republic of Lithuania;
E-mail: vilda.griuniene@zum.lt; phone: +370 5239 8406
National data collection website: https://zudc.lt/drp/
The work in the Lithuania in 2025-2027 will be carried out by **three implementing bodies**:

1) **Klaipeda University**
Contact details:
84 Herkus Mantas Street LT-92294 Klaipėda
Phone: +370 46 39 89 06
Fax: +370 46 39 89 99
E-mail: klaipeda.university@ku.lt
Responsible for biological parameters and surveys at sea.

2) **Fisheries Service under the Ministry of Agriculture of the Republic of Lithuania (FS under MoA).**
Contact details:
J. Janonio str. 24, LT-92251 Klaipeda, Lithuania
Tel. +370 700 14 903
Faks. +370 700 14 912
El. p. info@zuv.lt
Responsibility for the following tasks: *catches, landings and effort statistics, sales, recreational fisheries.*

3) **Agricultural Information and Rural Business Centre**
Contact details:
V. Kudirkos str. 18, LT-03105 Vilnius, Lithuania
Phone: (0 5) 2660620
E-mail: info@zudc.lt
Responsible for economic data collection, provision of social and economic analyses of fisheries sector.

Lithuania participates in RCG Baltic and NANSEA, RCG LDF and RCG on Economics Issues.

Text Box 1a: Test studies description

Region: Baltic Sea

Test study: 1 Genetics

General comment: This text box fulfils Chapter II, section 1.2 of the EU MAP Delegated Decision annex.
Name of the regional test study: 1 Genetics BALTIC RWP 2025-2027 implementation years.

Test study: 2 Diadromous species data collection

General comment: This text box fulfils Chapter II, section 1.2 of the EU MAP Delegated Decision annex.
Name of the regional test study: 2 Diadromous species data collection BALTIC RWP 2025-2027 implementation years.

Test study: 3 Regionally coordinated stomach sampling program

General comment: This text box fulfils Chapter II, section 1.2 of the EU MAP Delegated Decision annex.
Name of the regional test study: 3 Regionally coordinated stomach sampling program BALTIC RWP 2025-2027 implementation years

Test study: 4 Preparation of methodology of stomach sampling of *Sander lucioperca*

General comment: This text box fulfils Chapter II, section 1.2 of the EU MAP Delegated Decision annex.
Name of the national test study: 4 Preparation of methodology of stomach sampling of Sander lucioperca 1. Aim of the test study EC Delegated decision (EU)2021/1167 foresees collection of data on impact of fishing activities on food webs. Sander lucioperca is predatory species very important for small scale and recreational fisheries. Aim of the study is to prepare the methodology of stomach sampling of Sander lucioperca and asses the possibility to adapt the stomach sampling for assessing of impact of fishing activities targeting predatory species on food webs of the coastal marine ecosystem. 2. Duration of the test study 2022-2025 2025 – final report. 3. Methodology and expected outcomes of the test study Review of studies on stomach sampling of predatory fish species. Defining of practices suitable for stomach sampling of Sander lucioperca inhabit in the coastal zone of Lithuanian territorial sea and Curonian lagoon. Testing of these practices by taking stomach samples of S. lucioperca from commercial fishermen and during coastal fishing surveys. Evaluation of test results and compare to the similar technics already described in scientific studies. Evaluation of possibilities to adapt stomach sampling for assessing of impact of fishing activities targeting predatory species on food webs of the coastal marine ecosystem.

Test study: 5 eDNA approaches for fish biodiversity monitoring (including commercial fish species) in the Lithuanian marine coastal areas

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

Name of the national test study: 5 eDNA approaches for fish biodiversity monitoring (including commercial fish species) in the Lithuanian marine coastal areas

1. Aim of the test study

The aim of this proof-of-concept study is to showcase and test non-invasive collection of fish biodiversity information for monitoring purposes using eDNA approaches.

Environmental DNA contain bulk nucleic acids originating from living organisms present in the sample as well as dead cells and extracellular DNA. This overcomes the need to isolate or identify individual specimens and circumvents many of the difficulties associated with conventional morphological identification including: morphological complexities, cryptic life stages, and globally declining taxonomic expertise.

This study will be performed in parallel with the conventional sample collection using traditional net surveys to assess the comparability and complementarity of the results. Different eDNA sampling strategies will be performed to assess their efficiency and practicality for monitoring fish diversity and community structure in the study areas.

2. Duration of the test study

2025-2027

3. Methodology and expected outcomes of the test study

Custom in-water filtration devices with in-built filter holders and 20um nylon membrane filter inserts will be deployed at 2 depths at pre-defined sampling locations (the established monitoring sites at the coastal area) to collect samples at: top 2-5 m water layer; and ~2-5 m above the bottom. Triplicate filter samples will be collected at each depth per site per sampling event. If sampling at 5 sites, the total number of samples will be: 2depth x3 replicates x 5 areas = 30. The sample collection will take place in parallel with the traditional coastal fish monitoring surveys, ~10 times per year. Metabarcoding analysis using universal fish primers will be employed for ichtiofauna biodiversity assessment and characterization of community composition (i.e. relative abundance and/or occupancy of different fish species). The sequencing data for the targeted gene region will be generated using high-throughput sequencing Illumina platform, and then bioinformatically processed using the established analytical pipelines.

Expected outcomes: The fish biodiversity information derived from eDNA samples will allow to compare in-water eDNA signal to the traditional net survey approach, calibrate the detectability of fish taxa at different depth, gauge the suitability of eDNA-based sampling approaches for routine fish monitoring in Lithuanian coastal areas. Optional added value: DNA isolates from the collected samples can be further processed (beyond the scope of this case study) for other purposes - characterizing biodiversity at different trophic levels (bacteria, eukaryotes, metazoans, algae), detection of target species using species-specific assays (e.g. commercially important fish species, invasive species, pathogens).

The advantages of the eDNA-based monitoring include:

- Increased Sensitivity: Traditional survey methods often struggle to detect endangered or problematic species due to their low population densities and elusive behaviors. However, eDNA surveillance is highly sensitive and can detect species even at low abundance levels, providing a more accurate assessment of biodiversity within the ecosystem.
- Non-invasive Sampling: eDNA-based detection minimizes direct interaction with organisms. By collecting molecular fingerprints from water samples, eDNA sampling avoids direct impacts on species or their habitats, promoting conservation efforts while gathering crucial data.
- Time and Cost Efficiency: Conducting traditional species surveys typically demands substantial time, effort, and resources, especially in remote locations where logistics can be challenging. eDNA sampling is relatively quick and can cover larger areas with fewer resources, enabling simultaneous monitoring of multiple species and reducing overall costs.

The study covers: national and regional needs for new monitoring methodologies, governmental and scientific bodies informational needs for the stock assessment and management issues. The study results will help for the environment quality evaluation using the fish indices in Lithuanian marine coastal waters.

Test study:6 eDNA approaches for fish biodiversity and salmonid fish monitoring in the Lithuanian rivers

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

Name of the national test study:6 eDNA approaches for fish biodiversity and salmonid fish monitoring in the Lithuanian rivers

1. Aim of the test study

The aim of this proof-of-concept study is to showcase and test non-invasive collection of Salmon, sea trout and fish societies diversity information for monitoring purposes using eDNA approaches in Lithuanian rivers. Environmental DNA contain bulk nucleic acids originating from living organisms present in the sample as well as dead cells and extracellular DNA. This overcomes the need to isolate or identify individual specimens and circumvents many of the difficulties associated with conventional morphological identification including: morphological complexities, cryptic life stages, and globally declining taxonomic expertise. Combining eDNA metabarcoding with targeted assays (e.g. real-time quantitative Polymerase Chain Reaction, qPCR) offers a powerful, non-invasive, sensitive, and cost-effective way to detect and monitor species of interest (e.g. rare or endangered species). This study will be performed in parallel with the conventional sample collection using traditional surveys to assess the comparability and complementarity of the results. Different eDNA sampling approaches and strategies will be performed to assess their efficiency and practicality for monitoring fish diversity and community structure in the study areas. Explore the possibility of spatial integration of eDNA-derived biodiversity information across riverine network for inferring spatial distribution and populational hotspots of the targeted taxa.

2. Duration of the test study

2025-2027

3. Methodology and expected outcomes of the test study

Efficiency of different eDNA collection methods will be explored, including the in situ active water filtration, deployment of passive in-water eDNA collectors, sediment sample collection. Triplicate samples will be collected at pre-defined sampling sites, within two river systems, in parallel with the traditional fish monitoring surveys. Metabarcoding analysis using universal fish primers will be employed for ichtiofauna biodiversity assessment and characterization of community composition (i.e. relative abundance and/or occupancy of different fish species). The sequencing data for the targeted gene region will be generated using high-throughput sequencing Illumina platform, and then bioinformatically processed using the established analytical pipelines. A subset of samples will be also processed for species-specific qPCR assays to detect salmonid species. The qPCR approach allows for the quantification of the amount of target eDNA in the sample by generating standard curves from different dilutions of the control DNA sample with a known concentration. A modelling approach will be applied for translating eDNA point data into space-filling biodiversity maps across watersheds based on minimal input information, i.e. eDNA concentration data from qPCR and metabarcoding (read counts) data. By exploiting information from multiple sampling sites distributed in space and embedding a model for transport and concurrent decay of DNA, the model disentangles the various sources of DNA shedding, thereby revealing the spatial distribution of the target taxon’s abundance.

Expected outcomes: The fish biodiversity information derived from eDNA samples will allow to compare in-water eDNA signal to the traditional survey approach, calibrate the detectability of fish taxa at using different sampling method, gauge the suitability of eDNA-based sampling approaches for routine fish monitoring in Lithuanian rivers and inform the optimal monitoring strategy. The integrated modelling analysis will complement point-wise eDNA measurements by spatially projecting taxon distributions (and thus biodiversity information) into space-filling catchment maps. The advantages of the eDNA-based monitoring include:

- Increased Sensitivity: Traditional survey methods often struggle to detect endangered or problematic species due to their low population densities and elusive behaviours. However, eDNA surveillance is highly sensitive and can detect species even at low abundance levels, providing a more accurate assessment of biodiversity within the ecosystem.
- Non-invasive Sampling: eDNA-based detection minimizes direct interaction with organisms. By collecting molecular fingerprints from water samples, eDNA sampling avoids direct impacts on species or their habitats, promoting conservation efforts while gathering crucial data.
- Time and Cost Efficiency: Conducting traditional species surveys typically demands substantial time, effort, and resources, especially in remote locations where logistics can be challenging. eDNA sampling is relatively quick and can cover larger areas with fewer resources, enabling simultaneous monitoring of multiple species and reducing overall costs.
- The study covers: national and regional needs for new monitoring methodologies, governmental and scientific bodies informational needs for the stock assessment and management issues. The study results will help for the environment quality evaluation using the fish indices in Lithuanian inland waters.

Region: North-East Atlantic, North Sea and Eastern Arctic

Test study: 7 Genetics

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

Name of the regional test study: 5 Genetics

NANS&EA RWP 2025-2027 implementation years.

Test study: 8 Diadromous species data collection

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

Name of the regional test study: 6 Diadromous species data collection

NANS&EA RWP 2025-2027 implementation years.

Text Box 1b: Other data collection activities

Region: Baltic Sea, North-East Atlantic, North Sea and Eastern Arctic, Other regions (Eastern Central Atlantic, South-Pacific, North-Pacific)

Activity: 1 - RCGs Secretariat

General comment: Describe either activities that are funded by the DCF without a direct link to the EU MAP specific requirements or WP template tables, like marine knowledge, or activities funded by other financial instruments and/or programmes that relate to EU MAP requirements, like actions under the marine action plan. You can also include one-off specific studies for a particular end-user need that will not enter the regular data collection.

Name of the regional activity: 1 - RCGs Secretariat

BALTIC RWP, Long Distance Fisheries RWP, NANS&EA RWP, RWP ECON 2025-2027 implementation years.

Activity: 2 - Regional data base and estimation System (RDBES)

General comment: Describe either activities that are funded by the DCF without a direct link to the EU MAP specific requirements or WP template tables, like marine knowledge, or activities funded by other financial instruments and/or programmes that relate to EU MAP requirements, like actions under the marine action plan. You can also include one-off specific studies for a particular end-user need that will not enter the regular data collection.
Name of the regional activity: 2 - Regional data base and estimation System (RDBES) BALTIC RWP, Long Distance Fisheries RWP, NANS&EA RWP 2025-2027 implementation years.

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

General comment: Describe either activities that are funded by the DCF without a direct link to the EU MAP specific requirements or WP template tables, like marine knowledge, or activities funded by other financial instruments and/or programmes that relate to EU MAP requirements, like actions under the marine action plan. You can also include one-off specific studies for a particular end-user need that will not enter the regular data collection.
Name of the regional activity: 3 - Regional Coordination taking place in ISSGs and pan regional cooperation between RCGs BALTIC RWP, Long Distance Fisheries RWP, NANS&EA RWP 2025-2027 implementation years.

Activity: 4 - Smart Dots

General comment: Describe either activities that are funded by the DCF without a direct link to the EU MAP specific requirements or WP template tables, like marine knowledge, or activities funded by other financial instruments and/or programmes that relate to EU MAP requirements, like actions under the marine action plan. You can also include one-off specific studies for a particular end-user need that will not enter the regular data collection.
Name of the regional activity: 4 - Smart Dots BALTIC RWP, Long Distance Fisheries RWP, NANS&EA RWP 2025-2027 implementation years.

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

General comment: Describe either activities that are funded by the DCF without a direct link to the EU MAP specific requirements or WP template tables, like marine knowledge, or activities funded by other financial instruments and/or programmes that relate to EU MAP requirements, like actions under the marine action plan. You can also include one-off specific studies for a particular end-user need that will not enter the regular data collection.
Name of the regional activity: 5 - Catch, effort and sampling overviews for RCG Technical Meeting BALTIC RWP, Long Distance Fisheries RWP, NANS&EA RWP 2025-2027 implementation years.

Activity: 6 REGIONAL COORDINATION TAKING PLACE IN ISSGS AND PAN REGIONAL COOPERATION BETWEEN RCG'S

General comment: Describe either activities that are funded by the DCF without a direct link to the EU MAP specific requirements or WP template tables, like marine knowledge, or activities funded by other financial

instruments and/or programmes that relate to EU MAP requirements, like actions under the marine action plan. You can also include one-off specific studies for a particular end-user need that will not enter the regular data collection.

Name of the regional activity: 6 - Regional Coordination taking place in ISSGs and pan regional cooperation between RCGs

RWP ECON 2025-2027

SECTION 2: BIOLOGICAL DATA

Text Box 2.3: Diadromous species data collection in freshwater

Region: Baltic Sea, North-East Atlantic, North Sea and Eastern Arctic

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.

BALTIC RWP, NANS&EA RWP 2025-2027 implementation years.

Region: Baltic Sea

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.

Method selected for collecting data.

Diadromous (recreational). Data on the recreational fishery of salmon, sea trout and eel in the freshwater bodies of Lithuania including the Curonian Lagoon will be collected using off-site survey contact methods, e.g. mail, telephone, diaries, questionnaires, etc. (ICES WKSMRF 2009). Two interviewing methods will be used: CATI (Computer Assisted Telephone Interview), conducted by a professional interviewer; Answers will be recorded in a questionnaire (at least 60 %). During the CAWI (Computer Assisted Web Interview) the respondent will receive an invitation to participate in the study by e-mail including an active link to the electronic research questionnaire (no more than 40%). The target population of the questionnaires is residents of Lithuania. A minimum of 1000 respondents will be defined as anglers who will fish at least once in the inland waters of Lithuania during the last 12 months preceding survey. The questionnaires for interviewing will be used to collect data on the number of individuals caught, retained or released, individual length and weight of both retained and released fish. Questionnaires also include information on the name body of water where fish have been caught and the type of fishing permit used. In order to obtain representative estimates of the catch volumes, the corresponding fishing effort and catches, harvests and releases for all species both the data of the CATI and the CAWI will be weighted and extrapolated in various ways following the data collection.

European eel. There is only one eel management unit covering all Lithuanian waters (LT-total).

Catches of eel in the Baltic Sea are counted as few kilograms per year, so no data could be collected from the Baltic Sea. Concerning inland waters commercial eel fishing in rivers and lakes is decreasing and discussions on commercial eel fishing moratorium in rivers and lakes is ongoing now. Commercial catches of eel is allowed only in Curonian lagoon.
Diadromous variables on yellow and silver eel will be collected by onshore sampling of landings from selected fyke nets located in the Curonian lagoon. Planned number of sample sites is 2, sample size 100 individuals. Abundance of standing stock and silver eel escapement will be estimated based on the sample data.
In other lakes and rivers of Lithuania commercial fishing and by-catch of eel is prohibited, so data collection by specific surveys is planned. 2 monitoring places (2 river trap nets) will be used to collect samples for diadromous variables and estimation of abundance of standing stock and silver eel escapement. It is planned for 9 trip days during April- May to collect the sample data.
Yellow eel abundance will be estimated by sampling of catches with small mesh size traps in four lakes, two rivers and Curonian lagoon where 80-90% of total catches of eel were taken. Evaluation of age and comparison with quantities released. Silver eel escapement in addition to the sampling will be estimated by CPUE of commercial fishing.
Taking background above three sampling schemes for European eel are planned: “Eel water body commercial”, “Eel water body scientific”.

Salmon and Sea trout. Due to very small available TAC for salmon, there is no direct fishing for salmon in the Baltic. There is no direct fishing for sea trout in the Baltic Sea as well. Landings of salmon from Baltic Sea in 2021, 2022, 2023 were respectively 1.45, 0.02, 0.12 tons. Landings of sea trout were even smaller: in 2021, 2022 and 2023 were respectively 0.14, 0.04, 0.12. Commercial fishing and by-catch of salmon and sea trout is prohibited in fresh waters including Curonian lagoon. Therefore, no sampling schemes for commercial fishing of these species are planned, only a specific survey sampling scheme.
Diadromous variables (length, weight, sex ratio and age) for adults will be collected from three gillnet monitoring sites in Curonian lagoon (Nemunas catchment) during second half of the year.
Length, weight, age data for parrs will be collected from 100 electrofishing sites in the catchments of rivers Nemunas, Venta, Akmena-Dangė, Šventoji_B,, Bartuva. Parr abundance will be calculated based on the collected data. Length, weight, age data for smolts will be collected from 2 trap sites in the rivers of Nemunas catchment. Smolt abundance will be calculated based on electrofishing data.
One counter is planned to install in the Nemunas catchment to collect data on the ascending of individuals in rivers.
Taking background above four sampling schemes for salmon and sea trout are planned: “Diadromous water body parr”, “Diadromous water body smolt”, “Diadromous water body adult”.

Text Box 2.4: Recreational Fisheries

Region: Baltic Sea

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.

Baltic Regional Work Plan 2025-2027

Lithuania 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

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.

Recreational on-site surveys.
Salmo salar & *Salmo trutta.* In Lithuania, recreational salmon and sea trout fishing occur only from specialized trolling boats or charter vessels on the Lithuanian Baltic coast. Port entrance and slips on the coastline are monitored, providing coverage of all boats/vessels leaving the coast for fishing. The monitoring is complemented by on-site interviews of trolling anglers in all surveying boats and vessels to determine catch, harvest and release rates (each per boat) and to record biological catch data.
Fisheries service under the Ministry of Agriculture conducts surveys of the recreational fishery at sea 2-5 times per month during the high season of the fishery (January-May and October-December) on salmonids. The number and weight of retained and released individuals will be recorded during the physical analysis of the catch or from interview of anglers. Monthly reports on the number of boats and chartered vessels engaged in the recreational fishery will be provided by the State Border Guard Service. Total volume of retained and releases individuals in number and weight will be estimated: (*Catch of fleet in a month*) = *(mean catch of one vessel in a month*) x (*Number of vessels in fleet in a month*).
Gadus morhua: Fishery ban from 2020.
Anguilla anguilla: Fishery ban from 2023.

Text Box 2.5: Sampling plan description for biological data

Region: Baltic Sea

Sampling scheme name: Baltic SPF regional

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 scheme name (or identifier): Baltic SPF regional

BALTIC RWP 2025-2027 implementation years

Sampling scheme name: Baltic SSF

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 scheme name (or identifier): Baltic SSF

The sampling scheme designated for collecting samples from small scale fishing (SSF) vessels operating in Lithuania territorial sea.

Impact of Lithuanian SSF fleet to the fish stocks regulated by EU is very low, but sampling of this fleet is important for other purposes as HELCOM, MSFD, by-catch of PETS. Another feature making SSF fleet completely different from large scale fishing fleet is that the season is main factor driving the fishing pattern. Taking this background month*species was selected as PSU, then vessel*trip is selected as SSU. More information in Annex 1.1

Additional information on sampling schemes

Due to the regulations catches of (*Gadus morhua*), salmon (*Salmo salar*) and Sea trout (*Salmo trutta*) are extremely low, therefore in addition to regionally agreed schemes (Baltic SPF regional, BITS, BIAS SPRAS) biological samples are collected during national at sea survey "Lithuanian Coastal Fishing Survey" (LT-CFS). Detailed information provided in Annex 1.1.

Additional description of sampling frames

Sampling frame LTU_SSF. This sampling frame consists of small-scale vessels with average annual landings more than 1 ton and making at least 24 fishing trips per year. This sampling frame covers 89% percent of fishing trips and almost 96% landings made by Lithuanian SSF vessels. Detailed information provided in Annex 1.1.

(One text box (max. 1 000 words) per region/RFMO/RFO/IO)

Region: North Sea and Eastern Arctic

Sampling scheme name: NSEA pelagic trawlers

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 scheme name (or identifier): NSEA pelagic trawlers

The scheme aiming to collect length and weight samples of redfish (*Sebastes mentella*) from Lithuanian trawlers fishing in FAO subareas 27.1 and 27.2. More information in Annex 1.1

Additional information on sampling schemes

One vessel was fished for redfish in this area until 2023. This vessel is scrapped now. According to verbal statement of vessel operator it is not clear which vessel substitute (if any).

Additional description of sampling frames

All vessels from the target populations are included into sampling frame NSEA_PEL.

The vessel is operated in distance waters and never made landings in Lithuania. Taking in account limited resources it is not possible to deploy scientific observers on board, therefore self-sampling by crew was chosen. Some educated crew members (fish masters, trawl masters, even captains) are instructed how to collect samples.

PSU - vessel*trip, SSU - haul. Detailed information provided in Annex 1.1.

Sampling scheme name: NSEA shrimp trawlers

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 scheme name (or identifier): NSEA shrimp trawlers

The scheme aiming to collect length and weight samples of shrimp (Pandalus borealis) from Lithuanian trawlers fishing in FAO areas 27.1 and 27.2... More information in Annex 1.1

Additional information on sampling schemes

If trawls with collecting bags are used length and biological samples of cod (Gadus morhua) are taken. Detailed information provided in Annex 1.1.

Additional description of sampling frames

Up to two vessels are fishing for shrimp in this region. All vessels from the target populations are included into sampling frame NSEA_PRA.

The vessels are operated in distance waters and never made landings in Lithuania. Taking in account limited resources it is not possible to deploy scientific observers on board, therefore self-sampling by crew was chosen. Some educated crew members (fish masters, trawl masters, even captains) are instructed how to collect samples.

PSU - vessel*trip, SSU - haul. Detailed information provided in Annex 1.1.(

Region: North East Atlantic

Sampling scheme name: NEA pelagic trawlers

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 scheme name (or identifier): NEA pelagic trawlers

NANSEA RWP 2025-2027 selected blue whiting (*Micromesistius poutassou*) for sampling. One vessel is fishing for pelagic species in this region. According to quota allocation key Lithuania has just few tons of available quota for some fish stocks, but not for blue whiting. Fishing activity depends on quota acquired from other Member States. More information in Annex 1.1

Additional information on sampling schemes

NA

Additional description of sampling frames

Sampling frame NEA_PEL This sampling frame consists of small-scale vessels with average annual landings more than 1 ton and making at least 24 fishing trips per year. This sampling frame covers 89% percent of fishing trips and almost 96% landings made by Lithuanian SSF vessels. Detailed information provided in Annex 1.1.(

Sampling scheme name: NEA shrimp trawlers

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 scheme name (or identifier): NEA shrimp trawlers

The scheme aiming to collect length and weight samples of shrimp (*Pandalus borealis*) from Lithuanian trawlers fishing in FAO areas 27.5 and 27.14.. One vessel fishing for shrimp in this region.More information in Annex 1.1

Additional information on sampling schemes

NA

Additional description of sampling frames

Sampling frame NEA_PRA. The vessel is operated in distance waters and never made landings in Lithuania. Taking in account limited resources it is not possible to deploy scientific observers on board, therefore self-sampling by crew was chosen. Some educated crew members (fish masters, trawl masters, even captains) are instructed how to collect samples.

PSU – vessel*trip, SSU – haul. Detailed information provided in Annex 1.1.

Region: Other regions

Sampling scheme name: CECAF at sea sampling

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 scheme name (or identifier): CECAF at sea sampling

Long Distance Fisheries RWP 2025-2027 implementation years.

Sampling scheme name: SPRFMO at sea sampling

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 scheme name (or identifier): SPRFMO at sea sampling

Long Distance Fisheries RWP 2025-2027 implementation years.

Sampling scheme name: NPFC at sea sampling

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 scheme name (or identifier): NPFC at sea sampling

Long Distance Fisheries RWP 2025-2027 implementation years.

NAFO shrimp trawlers

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 scheme name (or identifier): NAFO shrimp trawlers

The scheme aiming to collect length and weight samples of shrimp (*Pandalus borealis*) from Lithuanian trawlers fishing in NAFO regulation area.

More information in Annex 1.1

Additional information on sampling schemes

One vessel fishing for shrimp in this region. However, since 2022 was introduced 0 quotas for shrimp in NAFO area 3M, so if it continues no target population will exist.

Additional description of sampling frames

Sampling frame NAFO_PRA. The vessel is operated in distance waters and never made landings in Lithuania. Taking in account limited resources it is not possible to deploy scientific observers on board, therefore self-sampling by crew was chosen. Some educated crew members (fish masters, trawl masters, even captains) are instructed how to collect samples.

Text Box 2.6: Research surveys at sea

Region: Baltic Sea

Research survey: Baltic International Trawl Surveys – BITS_Q1

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.

Research survey: Baltic International Trawl Surveys - BITS_Q1

BALTIC RWP 2025-2027 implementation years.

Research survey: Baltic International Trawl Surveys – BITS_Q4

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.

Research survey: Baltic International Trawl Surveys - BITS_Q4

BALTIC RWP 2025-2027 implementation years.

Research survey: Baltic International Acoustic Surveys – BIAS

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.

Research survey: Baltic International Acoustic Surveys - BIAS

BALTIC RWP 2025-2027 implementation years.

Research survey: Sprat Acoustic Surveys – SPRAS

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.

Research survey: Sprat Acoustic Surveys - SPRAS

BALTIC RWP 2025-2027 implementation years.

Research survey: Survey of fishes in the Lithuanian coastal waters of the Baltic Sea – LT-CFS

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.

Research survey: Survey of fishes in the Lithuanian coastal waters of the Baltic Sea - LT-CFS

1. Objectives of the survey

The biggest part of Lithuanian coastal zone is covered by NATURA 2000 (Figure 1). The Lithuanian coastal zone in the Baltic Sea is very rich and diverse community of hydro biotic organisms. It consists of lot ecological niches and fish nursery grounds important for commercial and non-commercial fishes especially for juveniles.

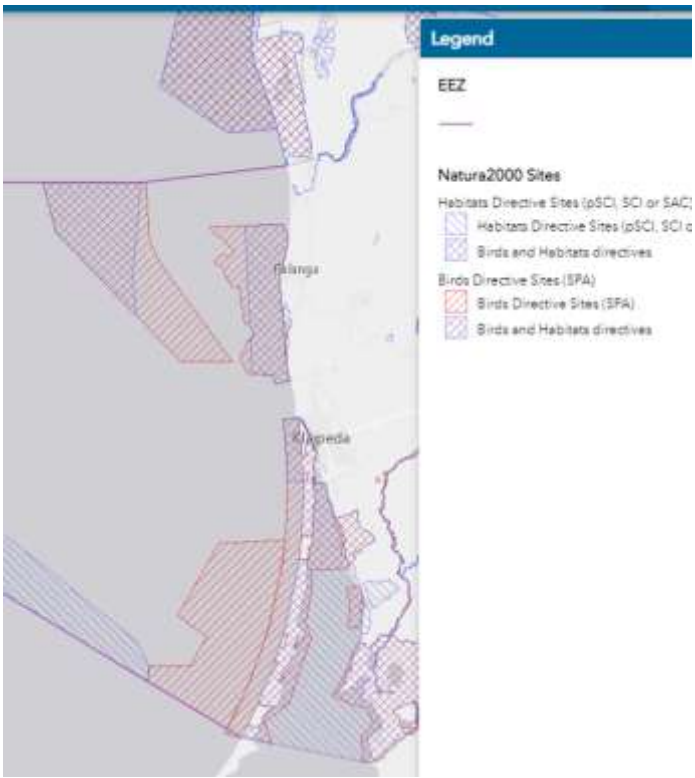


Figure 1. NATURA 2000 territories in Lithuanian territorial sea Natura 2000 Network Viewer (europa.eu).

The objective of the LT-CFS survey is to monitor changes of the coastal fish communities in relation to the impact of climate change, eutrophication, toxic substances, fishery, habitat alteration and alien species. Data from the survey is used for fishery management in the coastal zone and for calculation and evaluation of HELCOM and Marine Strategy Framework Directive fish indicators

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

Gillnet hauls

The multi mesh-sized gillnets (from 14mm to 70 mm) are casted in four scientific monitoring stations (SMS) alongside the Lithuania's coastal zone: (Nida, Smiltynė, Karklė - Nemerseta and Šventoji) The gillnet hauls are made monthly at least 8 months in the year in each SMS. Gillnet hauls are made by researchers of MRI in Smiltynė SMS, in other SMSs selected fishermen are equipped by multi-mesh-sized gillnets and makes the hauls according to instructions from MRI. The procedures of gillnetting and data collection are carried out according to HELCOM Guidelines for coastal fish monitoring 2019 and Thoresson,G. Guidelines For Coastal Fish Monitoring, 1996.

Beach seine hauls

The object of beach seine hauls is to collect data on juvenile and other fishes in the surf zone (juvenile survey) (Figure 2). Documentation on hauling and data collection provided in MRI SharePoint

Benthic invertebrate samples

During juvenile survey, special drag, constructed in the laboratory is used to collect invertebrate samples and samples of juveniles of flatfishes. Documentation on hauling and data collection provided in MRI SharePoint

Hydrography

Data on water temperature, salinity and oxygen concentration are collected in Smiltynė SMS and in all stations during juvenile survey.

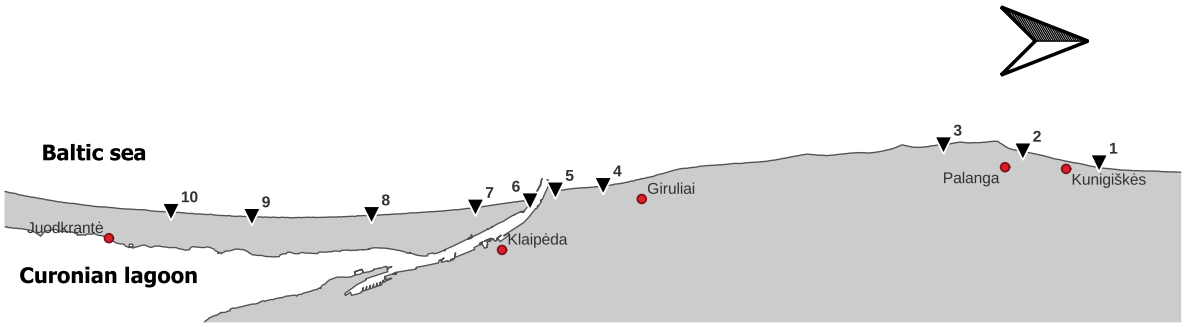


Figure 2. Planned sites of juvenile survey in Lithuanian coastal zone.

Research survey: Survey on by-catch of birds and other PETS in Lithuanian territorial sea– LT-BYCS

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.

Research survey: Survey on by-catch of birds and other PETS in Lithuanian territorial sea - LT-BYCS

1. Objectives of the survey

Triannual observation of by-catch of birds and other PETS in Lithuanian territorial sea.

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

Since it is the highest risk of by-catch of sea birds, methodology of survey will follow the practices acquired during international research project "Seabird Task Force: 2014-2017" See Annex 1.1 for more detail. Time period: 2026 October – 2027 June. The survey is related to the EU Marine Action Plan aim to collect information on PETS and identify knowledge gaps on PETS bycatch.

SECTION 3: FISHING ACTIVITY DATA

Text Box 3.1: Fishing activity variables data collection strategy

Region: Baltic Sea, North Sea and Eastern Arctic, North East Atlantic, Other regions (NAFO, CECAF, SPRFMO)

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

Baltic RWP 2025-2027, NANSEA RWP 2025-2027

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. Lithuania agreed and commits on a RWP strategy for data collection on Fishing activity.

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

For all fleet segments by supra and subregions the fishing activity variables is deriving from database system FDIS, which contains the primary data referred to Commission Regulation (EC) No 26/2004 of 30 December 2003 on the Community fishing fleet register in Annex I ,Council Implementing Regulation (EC) No 404/2011 in Annex X and the national legislation contains information regarding the restrictions on national logbook completion for vessels up to 8 metres' length overall. Community fishing vessels from 8 metres to 12 metres' length overall are obliged to keep a paper fishing logbook and submit landing declarations. Fishing vessels of 18 metres' length overall or more, the fishing logbook is in electronic form and the landing declarations are submitting electronically. The Lithuanian fleet does not consist of any active vessels with the length class of 12 to 18 meters. The National fisheries fleet register is integrated in FDIS.

Based on sales notes the average price by species, presentation and region is computing by dividing the total value of fish available for sale by the total weight available for sale during the period. Each sale note is related to the vessel trip, which allow computing the average price on base of vessel trips.

To approach reliable and high quality of data Lithuania uses a "census" type of logbooks for vessel, which is not recorded data under the Regulation (EU) No 1224/2009. The segments split to range up to 8 metres'. National logbooks are completing by a company engaged in commercial fishing in the Baltic Sea coastal area. List of vessels is approved by national legislation and covers the whole segment population. The landings and metier-based effort variables are provided by abovementioned logbooks. The logbooks information shall be transmitted to the authority 2 times per month. When classifying a data transmission failure regarding timeliness or completeness the company is notified, and report is re/submitted. The logbooks landing information are cross-checking with sales notes. The electronic data transmission software for vessels up to 8 metres and from 8 metres till 12 metres segments is under development.

VMS data collection covers the fleet of fishing vessels of 18 metres' length overall or more. For assessing the impact of fisheries on marine habitats (ref: 2017/1004 Article 6(3) (b) and (c)), a routine has been set up using a combination of VMS and logbook, sales notes and vessel register data. For creating dataset, the sales notes information of average price on the region level is distributed on the logbook data using area, trip and species information. In addition, the vessel capacity data is added using the National fisheries fleet register. The electronic position transmission software for vessels up to 8 metres and from 8 metres till 12 metres segments is under development.
(max. 900 words)

Text Box 3.2: Fishing activity variables data collection strategy (for inland eel commercial fisheries)

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 3.2 of the EU MAP Delegated Decision annex. It is intended to describe the methods and data sources used to estimate fishing capacity, effort and landings data.

Freshwater eel fishery (8,7- 4,8 t/year, 2022-2023) occurs in 36 inland waters 38 entities in 2022 and only in 18 rivers and lakes 19 entities in 2023. While in Curonian lagoon in 2022 29 entities were used fyke nets where catch was 2,9 t and in 2023 24 entities were used fyke nets where catch was 1,4 t. However, the catches of eel in Curonian lagoon only by catch. Almost all the eels catches are of restocked background. Fishing gear mesh sizes, fishing periods and other technical measures are defined in the "Rules for commercial fishing in inland waters and Curonian lagoon" adopted by Ministry of Environment. The gear used consists mostly of traps. The total capacity of the freshwater fishery in 2023 was 18 commercial fishermen/companies.
The fishing period for use of eel traps in rivers and lakes is first part of year. According to national regulations each legal person shall keep records on each fishing operation and catches during this operation in the fishing logbook/sheet. Eel which length is less than 35 centimetres shall be released. Legal person fishing in lakes and rivers once per quarter shall provide summary report on fishing effort and catch by fishing gear to the regional environment protection department. The official statistics on eel fishery contains data not by vessel*trip, but by company*fishing days. The commonly used assumption for a daily activity that: 1 fishing day = 1 fishing trip = 1 day at lake/river as far as no other information contradict it. However, in rivers and lakes the eel target fisheries will be band from 1 January 2026.
To fulfil requirement on collection of data on eel fishing activities set out in the Table 6 of Delegated decision (EU)2021/1167, following sampling strategy is planned:

- for 2025 eel fishing in lakes and rivers: census data with resolution company/fishing days per year/trips per year/catches per year. The data source is companies reports submitted to the Ministry of Environment.
- for 2025-2027 eel fishing in Curonian lagoon: census data with resolution company fishing days per year/trips per year/catches per year.

The aggregated report will be available for end users and other DCF purposes.

Text Box 4.2: Incidental catches of sensitive species

Region: Baltic Sea

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.

BALTIC RWP 2025-2027 implementation years

Activities:

1. Incidental catches of sensitive species - List of PET Species provided by ICES.
2. RDBES incorporation of bycatch data.
3. Identification of high-risk fisheries.

All these three activities are directly related to the implementation of EU Marine Action Plan.

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.

Additional information on planning the observation of incidental catches of sensitive species (if already filled in in Annex 1.1, please indicate where it can be found):

— Has an assessment of the relative risk of bycatch for the different gear types/metiers taken place and been taken into account for the sampling design?

Risk of by-catch of PETS in the Baltic Sea was assessed in the pilot study "Level of fishing and impact of fisheries on biological resources and marine ecosystem" conducted in 2019 – 2020. Briefly: the highest risk of by-catch of PETS is for the SSF fishing with gillnets in Lithuanian territorial sea. The highest risk is for by-catch of sea birds, but these by-catches are very fragmented so design of separate sampling scheme covering commercial fishing trips of SSF gillnetters deemed to be very costly, and inaccurate. Therefore, it was proposed to conduct targeted surveys periodically. Risk of by-catch of sea mammals is very low, just risk of destroying of catch and/or fishing gears by sea mammals. Due to introduction of ban on fishing for cod demersal trawling become unrewarding, so most of demersal trawlers shifted to the pelagic trawling or are going to cease fishing activities at all. There are very low activities of pelagic fisheries in the Baltic during June – September (period indicated for observations in the Annex XIII of Regulation (EU)2019/1241).

— What are the gear types/metiers that present the highest risk of bycatch per species/taxa of PETS in a given region?

Passive gears in the coastal area of the Baltic Sea presents highest risk of birds bycatch. Other gears in other regions have the lowest risk of incidental bycatch of PETS.

— What methods are used to calculate the observation effort?

Small vessels in the Baltic Sea are obligated to record any incidental by-catch of animals in their log-books. Observation on such types of vessels is impossible due to lack of space on-board and safety reasons. Fishermen from coastal fishery of the Baltic Sea may also make records of incidental by-catch in the log-books.

— Does the sampling design and protocol follow the recommendations from relevant expert groups? Provide appropriate references. If there are no relevant expert groups, the design and protocol have to be explained in the text.

Expert group WGBYC did not provide any recommendations on sampling design.

Additional information on observer protocols (if already filled in in Annex 1.1, indicate where it can be found):

— Does the on-board observer protocol contain a check for rare specimens in the catch at opening of the cod-end? If YES, is the observer instructed to indicate if the cod-end was NOT checked in a haul?

In case of small catches observers have opportunity to check rare species in the codend. If catches are too large only subsample of catches might be taken for catch composition. There are no specific indications for checking haul included in sampling protocol.

— In gill nets and hook-and-line fisheries: does the on-board observer protocol instruct the observer to indicate how much of the hauling process has been observed for (large) incidental bycatches that slip out of the net?

There are no specific instructions for recording of such case in sampling protocol.

— In large catches: does the protocol instruct the observer to check for rare specimens during sorting of the catch (i.e. at the conveyor belt)? Is the observer instructed to indicate what percentage of the sorting or hauling process has been checked at 'haul level'?

During the sorting procedure observers are checking every haul and the results are reflected in their reports. If the percentage is required, it could be estimated from that report.

Additional information on sampling schemes:

NA

Additional description on sampling frames

NA

Region: North Sea and Eastern Arctic

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.

NANS&EA RWP 2025-2027 implementation years

Activities:

1. Incidental catches of sensitive species - List of PET Species provided by ICES.
2. RDBES incorporation of bycatch data.
3. Identification of high-risk fisheries.

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.

Additional information on planning the observation of incidental catches of sensitive species (if already filled in in Annex 1.1, please indicate where it can be found):

— Has an assessment of the relative risk of bycatch for the different gear types/metiers taken place and been taken into account for the sampling design?

Risk assessment of bycatch for different types/metiers was not performed. Sampling design is based on the experience and data that had been collected in previous years.

— What are the gear types/metiers that present the highest risk of bycatch per species/taxa of PETS in a given region?

Available data do not allow to identify the gear-specific risk level of bycatch.

— What methods are used to calculate the observation effort?

There are no methodology to calculate the observation effort. Allocation of observers on board depends on space availability and fulfillment of safety requirements. By-catch of any animals from trawlers, which operate in distant waters, are being registered by master in the log-books. If observer is available on-board, this part of data collection is performed by observer.

— Does the sampling design and protocol follow the recommendations from relevant expert groups? Provide appropriate references. If there are no relevant expert groups, the design and protocol have to be explained in the text.

Expert group WGBYC did not provide any recommendations on sampling design.

Additional information on observer protocols (if already filled in in Annex 1.1, indicate where it can be found):

— Does the on-board observer protocol contain a check for rare specimens in the catch at opening of the cod-end? If YES, is the observer instructed to indicate if the cod-end was NOT checked in a haul?

In case of small catches observers have opportunity to check rare species in the codend. If catches are too large only subsample of catches might be taken for catch composition. There are no specific indications for checking haul included in sampling protocol.

— In gill nets and hook-and-line fisheries: does the on-board observer protocol instruct the observer to indicate how much of the hauling process has been observed for (large) incidental bycatches that slip out of the net?

Lithuanian fleet does not use that type of fishery in North Sea and Eastern Arctic area-

— In large catches: does the protocol instruct the observer to check for rare specimens during sorting of the catch (i.e. at the conveyor belt)? Is the observer instructed to indicate what percentage of the sorting or hauling process has been checked at 'haul level'?

On fishing trawlers operating in distant waters during the sorting procedure at conveyor belt observers are instructed to check rare specimens. During the sorting procedure observers are checking every haul and the results are reflected in their reports. If the percentage is required, it could be estimated from that report.

Additional information on sampling schemes:

NA

Additional description on sampling frames

NA

Region: North-East Atlantic

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.

NANS&EA RWP 2025-2027 implementation years

Activities:

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

2. RDBES incorporation of bycatch data.
3. Identification of high-risk fisheries.

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.

This text box is complementary to information on the sampling schemes provided in the quality document (Annex 1.1). It serves to highlight information on sampling schemes and sampling frames related to incidental catches of sensitive species.

Additional information on planning the observation of incidental catches of sensitive species (if already filled in in Annex 1.1, please indicate where it can be found):

— Has an assessment of the relative risk of bycatch for the different gear types/metiers taken place and been taken into account for the sampling design?

Risk assessment of bycatch for different types/metiers was not performed. Sampling design is based on the experience and data that had been collected in previous years.

— What are the gear types/metiers that present the highest risk of bycatch per species/taxa of PETS in a given region?

Available data do not allow to identify the gear-specific risk level of bycatch.

— What methods are used to calculate the observation effort?

There are no methodology to calculate the observation effort. Allocation of observers on board depends on space availability and fulfillment of safety requirements. By-catch of any animals from trawlers, which operate in distant waters, are being registered by master in the log-books. If observer is available on-board, this part of data collection is performed by observer.

— Does the sampling design and protocol follow the recommendations from relevant expert groups? Provide appropriate references. If there are no relevant expert groups, the design and protocol have to be explained in the text.

Expert group WGBYC did not provide any recommendations on sampling design.

Additional information on observer protocols (if already filled in in Annex 1.1, indicate where it can be found):

— Does the on-board observer protocol contain a check for rare specimens in the catch at opening of the cod-end? If YES, is the observer instructed to indicate if the cod-end was NOT checked in a haul?

In case of small catches observers have opportunity to check rare species in the codend. If catches are too large only subsample of catches might be taken for catch composition. There are no specific indications for checking haul included in sampling protocol.

— In gill nets and hook-and-line fisheries: does the on-board observer protocol instruct the observer to indicate how much of the hauling process has been observed for (large) incidental bycatches that slip out of the net?

Lithuanian fleet does not use that type of fishery in North East Atlantic area-

— In large catches: does the protocol instruct the observer to check for rare specimens during sorting of the catch (i.e. at the conveyor belt)? Is the observer instructed to indicate what percentage of the sorting or hauling process has been checked at ‘haul level’?

On fishing trawlers operating in distant waters during the sorting procedure at conveyor belt observers are instructed to check rare specimens. During the sorting procedure observers are checking every haul and the results are reflected in their reports. If the percentage is required, it could be estimated from that report.

Additional information on sampling schemes:

NA

Additional description on sampling frames

NA

Region: Other regions (Eastern Central Atlantic, South-Pacific, North-Pacific, North West Atlantic)

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.

Long Distance Fisheries RWP 2025-2027 implementation years.

Data on by-catch including incidental catches of sensitive species are collected as a standard procedure provided in the observer manual relevant for the particular region. Additional information is provided in Long Distance Fisheries RWP Annex 1.1.

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.

Additional information on planning the observation of incidental catches of sensitive species (if already filled in in Annex 1.1, please indicate where it can be found):

— Has an assessment of the relative risk of bycatch for the different gear types/metiers taken place and been taken into account for the sampling design?

Risk assessment of bycatch for different types/metiers was not performed. Sampling design is based on the experience and data that had been collected in previous years.

— What are the gear types/metiers that present the highest risk of bycatch per species/taxa of PETS in a given region?

Available data do not allow to identify the gear-specific risk level of bycatch.

— What methods are used to calculate the observation effort?

There are no methodology to calculate the observation effort. Allocation of observers on board depends on space availability and fulfillment of safety requirements. By-catch of any animals from trawlers, which operate in distant waters, are being registered by master in the log-books. If observer is available on-board, this part of data collection is performed by observer.

— Does the sampling design and protocol follow the recommendations from relevant expert groups? Provide appropriate references. If there are no relevant expert groups, the design and protocol have to be explained in the text.

Expert group WGBYC did not provide any recommendations on sampling design.

Additional information on observer protocols (if already filled in in Annex 1.1, indicate where it can be found):

— Does the on-board observer protocol contain a check for rare specimens in the catch at opening of the cod-end? If YES, is the observer instructed to indicate if the cod-end was NOT checked in a haul?

In case of small catches observers have opportunity to check rare species in the codend. If catches are too large only subsample of catches might be taken for catch composition. There are no specific indications for checking haul included in sampling protocol.

— In gill nets and hook-and-line fisheries: does the on-board observer protocol instruct the observer to indicate how much of the hauling process has been observed for (large) incidental bycatches that slip out of the net?

Lithuanian fleet does not use that type of fishery in North West Atlantic-

— In large catches: does the protocol instruct the observer to check for rare specimens during sorting of the catch (i.e. at the conveyor belt)? Is the observer instructed to indicate what percentage of the sorting or hauling process has been checked at 'haul level'?

On fishing trawlers operating in distant waters during the sorting procedure at conveyor belt observers are instructed to check rare specimens. During the sorting procedure observers are checking every haul and the results are reflected in their reports. If the percentage is required, it could be estimated from that report.

Additional information on sampling schemes:

NA

Additional description on sampling frames

NA

Text Box 4.3: Fisheries impact on marine habitats

Region: Baltic Sea

Study: Preparation of methodology of stomach sampling of *Sander lucioperca*

General comment: This text box fulfils Article 5 paragraph 2(a) and 2(b), Article 6 paragraph 3(a), 3(b) and 3(c) of Regulation (EU) 2017/1004 and Chapter 2, section 4.2 of the EU MAP Delegated Decision annex. It contains information on additional studies on the fisheries impact on marine habitats.

Name of the study: Preparation of methodology of stomach sampling of *Sander lucioperca*

The requirements provided in General comments are implemented in the test study described in the Tex Box 1a, test study 4.

SECTION 5: ECONOMIC AND SOCIAL DATA IN FISHERIES

Text Box 5.2: Economic and social variables for fisheries data collection

General comment: This Text box fulfils Article 5(2)(d), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004, and Chapter II point 5 of the EU MAP Delegated Decision annex. It is intended to specify data to be collected under Tables 7, 8 and 9 of the EU MAP Delegated Decision annex.

RWP ECON 2025-2027

1. Description of clustering

Scheme of clustering of Lithuanian fishing fleet is provided in WP Table 5.1 Fleet population. The clustering option is chosen due to the low number of vessels per segment and to avoid confidentiality issues segments are merged by the scheme "Segments similar to other segments". Importance of the fleet segments were assessed taking into account fishing patterns and dominance of the fishing effort.

The largest cluster in terms of number of vessels merge large scale fleet operating in the Baltic Sea with dominant pelagic trawlers. Cluster combines different length of pelagic trawlers (18-24 m; 24-40 m; 40 m or larger) and demersal trawlers (18-24 m; 24-40 m) which target mixed fisheries (demersal and pelagic, depending from quota allocated), but due to the closed cod fisheries in the Baltic Sea, operates only with pelagic trawler and having just bycatch of cod and insignificant number of landings of demersal species as flounder.

Due to the decreased number of vessels in the segment Drift and/or fixed netters 8-< 12 m could be clustered with another small-scale coastal fleet segment Vessels using Polyvalent "passive" gears only 0-< 8 m when confidentiality threshold will be reached. In 2024 number of companies operating with Drift and/or fixed netters 8-< 12 m were three.

Due to the confidentiality reason, long distance fleet is clustered to one segment Pelagic trawlers 40 m or larger*, because for each separate segment operating in long distance fleet is less than 3 companies. Clustered segment is mainly represented by the pelagic trawlers which in 2023 generated 90% of total weight of landings in the cluster. In 2023 6 companies composed long distance fleet cluster, operating with 5 vessels in total.

2. Description of activity indicator

Application of activity indicator to divide the fleet segment into different activity levels is not foreseen

3. Deviation from the RCG ECON (ex. PGECON) definitions

No deviation from the RCG ECON definitions

(max. 900 words)

SECTION 6: ECONOMIC AND SOCIAL DATA IN AQUACULTURE

Text Box 6.1: Economic and social variables for aquaculture data collection

General comment: This text box fulfils Article 5(2)(e), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004, and Chapter II point 6 of the EU MAP Delegated Decision annex. It is intended to specify data to be collected under Tables 10 and 11 of the EU MAP Delegated Decision annex.

RWP ECON 2025-2027

1. Description of the threshold application

According to the 2022 EUROSTAT data, EU-27 aquaculture production was 1 084.3 thousand tonnes, corresponding to EUR 4 829.7 million. In 2022 Lithuanian aquaculture industry produced 4.4 thousand tonnes of freshwater aquaculture production corresponding to EUR 18.4 million and was accounted for 0.4% of total EU-27 aquaculture weight and value. According to Commission Implementing Decision (EU) 2021/1168 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, it is not mandatory for Member States to collect social, economic and environmental data on aquaculture if their total aquaculture production is less than 1 % of total Union aquaculture production by both weight and value.

2. Deviation from the RCG ECON (ex. PGECON) definitions

No deviation from RCG ECON as social, economic and environmental data on aquaculture is not planned for 2025-2027 based on threshold application.

(max. 900 words)

SECTION 7: ECONOMIC AND SOCIAL DATA IN FISH PROCESSING

Text Box 7.1: Economic and social variables for fish processing data collection

General comment: This text box fulfils Article 5(2)(f), Article 6(3)(a), (b) and (c) of Regulation (EU) 2017/1004, and Chapter II point 7 of the EU MAP Delegated Decision annex.

RWP ECON 2025-2027

1. The Member State should provide justification for complementary data collection for fish processing in addition to Eurostat data.

Lithuanian fish processing industry plays an important socioeconomic role in the overall national fisheries sector. In 2023 fish processing industry contributed by 86% of total employment in fisheries sector (around 5400 employees) and around 83% of turnover (around 660 million Eur). Under Data Collection Framework, socioeconomic data from fish processing industry was collected from 2006 and was provided for the main end-users of socioeconomic data of fish processing industry which are STECF, international organizations, producer organizations, scientific bodies and national authorities which are in charge of preparation and implementation of sectoral strategies as well as monitoring and evaluating achievements and impacts of fishery policy implementation in Lithuania. For the 2025-2027 period, economic data of fish processing industry is planned to be collected on the annual census survey, whereas social data on triannual basis.
List of variables, which will be collected from Lithuanian fish processing industry is provided in the Section 7 (Text Box 7.1: Economic and social variables for fish processing data collection) of RWP ECON 2025-2027. Concerning data collection of fish processing industry, information on the sampling schemes, survey design, estimation methods for non-responses as well as other QAF information is provided in the Methodological report (annex 1.2).
Data regarding the variable group “Raw material” will not be collected. It has an optional data collection requirement in Section 7 of RWP ECON 2025-2027. As additional data collection on raw materials per species and origin would create additional unwarranted burden for respondents, data collection through existing questionnaires is currently impossible. Lithuanian Agricultural and Food Product Market Information System

(LAFPMIS) is collecting data on raw material by species and origin for fish processing through other production questionnaire, however, the structure and disaggregation of collected data is insufficient and cannot be applied for reporting of the weight of raw material per species, production environment and country of origin without extensive estimations. However, there are plans to redesign the questionnairies in the future to ensure compliance and improve reporting.

2. Deviation from the RCG ECON (ex. PGECON) definitions

No deviations from the RCG ECON

(max. 900 words)

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.

Related to Table 2.5 [and Text Box 2.5] (commercial fisheries data collection)

Sampling scheme identifier: Baltic SPF regional

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: SelfAtSea
Time period of validity: 2025-2027
Short description (max 100 words): BALTIC RWP 2025-2027 implementation years.
Description of the population
Population targeted: **Population sampled:** **Stratification:**
Sampling design and protocols
Sampling design description: **Is the sampling design compliant with the 4S principle?:** **Regional coordination:** **Link to sampling design documentation:** **Design follows international recommendations:** **Link to sampling protocol documentation:** **Protocol follows international recommendations:**.
Sampling implementation
Recording of refusal rate: **Monitoring of sampling progress within the sampling year:**
Data capture
Means of data capture: **Data capture documentation:** **Quality checks documentation:**.
Data storage
National database: **International database:** **Quality checks and data validation documentation:**
Sample storage
Storage description: **Sample analysis:**
Data processing
Evaluation of data accuracy (bias and precision): **Editing and imputation methods:** **Quality document associated to a dataset:**

Validation of the final dataset:

Sampling scheme identifier: CECAF at sea sampling

MS : DEU, LVA, LTU, NLD, POL
Region: Other regions **(**CECAF)
Sampling scheme identifier: CECAF at sea sampling
Sampling scheme type: Commercial fishing trip
Observation type: SciObsAtSea
Time period of validity: 2025-2027
Short description (max 100 words): Long Distance Fisheries RWP 2025-2027 implementation years.
Description of the population
Population targeted: **Population sampled:** **Stratification:**
Sampling design and protocols
Sampling design description: **Is the sampling design compliant with the 4S principle?:** **Regional coordination:** **Link to sampling design documentation:** **Design follows international recommendations:** **Link to sampling protocol documentation:** **Protocol follows international recommendations:**
Sampling implementation
Recording of refusal rate: **Monitoring of sampling progress within the sampling year:**
Data capture
Means of data capture: **Data capture documentation:** **Quality checks documentation:**
Data storage
National database: **International database:** **Quality checks and data validation documentation:**
Sample storage
Storage description: **Sample analysis:**
Data processing
Evaluation of data accuracy (bias and precision): **Editing and imputation methods:** **Quality document associated to a dataset:** **Validation of the final dataset:**

Sampling scheme identifier: SPRFMO at sea sampling

MS : DEU, LTU, NLD, POL
Region: Other regions **(**SPRFMO)
Sampling scheme identifier: SPRFMO at sea sampling

Sampling scheme type: Commercial fishing trip
Observation type: SciObsAtSea
Time period of validity: 2025-2027
Short description (max 100 words): Long Distance Fisheries RWP 2025-2027 implementation years.
Description of the population
Population targeted: **Population sampled:** **Stratification:**
Sampling design and protocols
Sampling design description: **Is the sampling design compliant with the 4S principle?:** **Regional coordination:** **Link to sampling design documentation:** **Design follows international recommendations:** **Link to sampling protocol documentation:** **Protocol follows international recommendations:**
Sampling implementation
Recording of refusal rate: **Monitoring of sampling progress within the sampling year:**
Data capture
Means of data capture: **Data capture documentation:** **Quality checks documentation:**
Data storage
National database: **International database:** **Quality checks and data validation documentation:**
Sample storage
Storage description: **Sample analysis:**
Data processing
Evaluation of data accuracy (bias and precision): **Editing and imputation methods:** **Quality document associated to a dataset:** **Validation of the final dataset:**

Sampling scheme identifier: NPFC at sea sampling

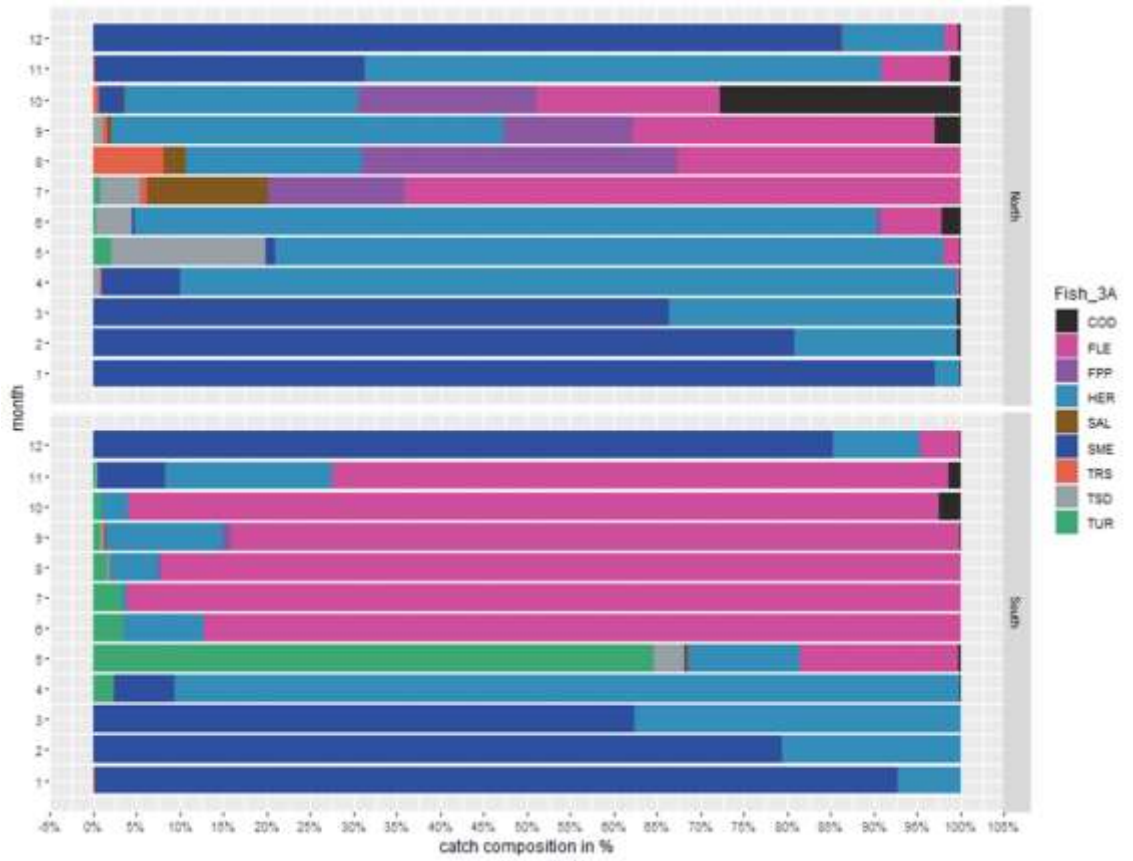
MS : DEU, LTU, NLD, POL
Region: Other regions **(**NPFC)
Sampling scheme identifier: NPFC at sea sampling
Sampling scheme type: Commercial fishing trip
Observation type: SciObsAtSea
Time period of validity: 2025-2027
Short description (max 100 words): Long Distance Fisheries RWP 2025-2027 implementation years.
Description of the population
Population targeted:

Population sampled: **Stratification:**
Sampling design and protocols
Sampling design description: **Is the sampling design compliant with the 4S principle?:** **Regional coordination:** **Link to sampling design documentation:** **Design follows international recommendations:** **Link to sampling protocol documentation:** **Protocol follows international recommendations:**
Sampling implementation
Recording of refusal rate: **Monitoring of sampling progress within the sampling year:**
Data capture
Means of data capture: **Data capture documentation:** **Quality checks documentation:**
Data storage
National database: **International database:** **Quality checks and data validation documentation:**
Sample storage
Storage description: **Sample analysis:**
Data processing
Evaluation of data accuracy (bias and precision): **Editing and imputation methods:** **Quality document associated to a dataset:** **Validation of the final dataset:**

Sampling scheme identifier: Baltic SSF

MS: LTU
Region: Baltic Sea
Sampling scheme identifier: Baltic SSF.
Sampling scheme type: Commercial fishing trip
Observation type: SciObsOnShore
Time period of validity: 2025 -2027
Short description (max 100 words): The scheme aiming to collect length and biological samples of selected species from commercial landings in Baltic Sea from small scale fishing vessels.
Description of the population: The population is landings of selected species from Lithuanian small-scale fishing fleet. Quantities of landings from SSF fleet consist only few percents from total landings in the Baltic Sea, however SSF becomes very important for local economy, because starting from 2023 only SSF fleet makes landings in Lithuanian ports. Share of SSF in landings of regulated pelagic species is less than 5%, however after introducing ban for fishing for cod, landings of demersal species from SSF vessels makes the biggest part from total. Traditionally smelt and cod generated the biggest part of incomes, so smelt *(Osmerus eperlanus)* was selected for sampling. Starting from 2023 bycatch of shad *(Alosa alosa*) – the species listed in the Table 2 of Delegated decision No 1167/2021 – increased drastically, so this species was selected for sampling as well.

Population targeted: Population targeted is landings of selected species (small table below) from Lithuanian small-scale fishing vessels. Composition of landings depends on season, but not on size of vessel (see pictures 1.1.1. and 1.1.2.).

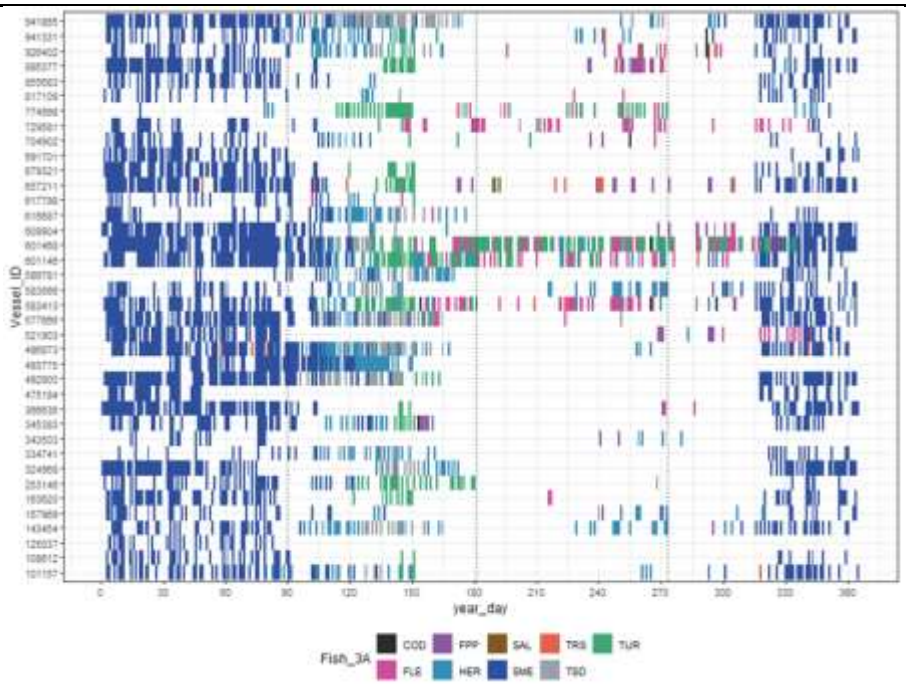


Pic 1.1.1: Average monthly share of landings of species subject to sampling scheme Baltic SSF in southern and northern zones of Lithuania coastal waters during years 2021-2023

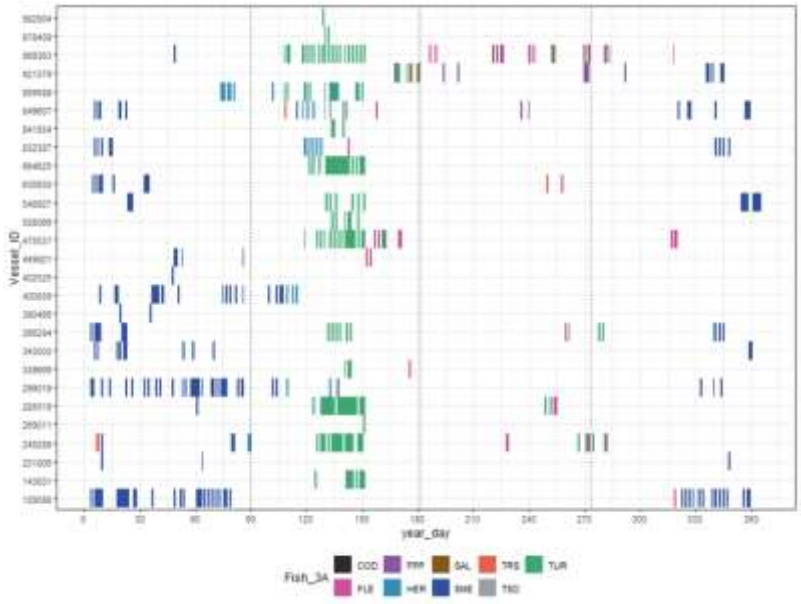
Selected species and 3alfa codes:

Scientific name	**Fish_3A**
Anguilla anguilla	*ELE*
Clupea harengus	HER
Gadus morhua	COD
Platichthys flesus	FLE
Sander lucioperca	FPP
Scophthalmus maximus	TUR
Sprattus sprattus	SPR
Osmerus eperlanus	SME
Alosa falax	TSD

.**Population sampled:** Population targeted is landings of selected species from Lithuanian small-scale fishing vessels with average annual landings not less than 1 tone and conducting at least 24 fishing trips per year. During the reference period (2021-2023) average number of such vessels was 28, average number of landings was 1463. Population targeted covers about 90% of fishing trips and almost 96% of landings from all the population.



Pic.1.1 yearly distribution of landings of species subject to sampling scheme Baltic SSF by vessels selected for sampling in 2021-2023.



Pic.1.1.2 yearly distribution of landings of species subject to sampling scheme Baltic SSF by vessels out of sampling frame in 2021-2023.

Stratification: None

Sampling design and protocols

Sampling design description: Impact of Lithuanian SSF fleet to the fish stocks regulated by EU is very low, but sampling of this fleet is important for other purposes as HELCOM, MSFD, by-catch of PETS. Another feature making SSF fleet completely different from large scale fishing fleet is that the season is main factor driving the fishing pattern. Taking this background month*species was selected as PSU, then vessel*trip is selected as SSU

Is the sampling design compliant with the 4S principle?: Partly. Method of PSU selection is FIXED; method of SSU selection is Non-Probabilistic Convenience Sampling **(**NPCS). This method. The sampling scheme fists to RDBES hierarchy 1.

Regional coordination: None

Link to sampling design documentation: 02_Baltija_versliniai Sampling design documentation designated for local use only, so it is in Lithuanian language.

Design follows international recommendations: Y, related to WGCATCH recommendations on commercial fisheries sampling methodologies.

Link to sampling protocol documentation: 02_Baltija_versliniai Sampling design documentation designated for local use only, so it is in Lithuanian language.

Protocol follows international recommendations: Y, related to WGCATCH recommendations on commercial fisheries sampling methodologies

Sampling implementation

Recording of refusal rate: NA, because selection method is NPCS

Monitoring of sampling progress within the sampling year: NA

Data capture

Means of data capture: Length measurements made by measuring board; weight measuring by digital scales (Kern); sex determination visually, maturity determination visually; age determination by mainly by otolith reading, for some species by scales reading. Depending on species otoliths are prepared Struers Miniton or by brake and burn method then analysed using trinocular Motic.

Data capture documentation:

Data capture is going in three phases:

1. Manual entering of data in raw data logbook/sheet. It contains raw data on measuring, vessel detail, gear detail, geographical info.
2. Tabling of raw data into pre-importing excel workbook. This workbook contains four tables with information on sampled fishing trip, sampled hauls, catches and measurements. Initial design of this workbook was adapted to RDB formats, but now additional info is added to enable create RDBES tables.
3. Checking and importation of data integrated into final data base of primary samples (01_VERSLINIAI). More info in "Data storage and "Quality checks"

Quality checks documentation: Quality checks are integrated into 2nd and 3rd phases of data capture. Some data validation rules as dates consistency, data formats, are integrated into pre-importing excel workbook. After data are tabled in this workbook the error checking is performed by R-script. This script allows to find missed values, to correct codes, to find externalities and other. The script is always updated depending on errors discovered, For the moment this script allows to find 8 types of errors.

Data storage

National database: After error check is performed data are imported into national data storage system in KU SharePoint. Since it contains confidential data, information is saved in encrypted zip file. VERSLINIAI.zip. Short description in English struktura_versl - Anglų.docx

International database: Data are uploading into relevant ICES data portals.

Quality checks and data validation documentation: See Quality checks documentation

Sample storage

Storage description:

See National data base.

Sample analysis:

Consistency of samples is analysed during error checks. No additional sample analysis for stock subject to ICES (the analysis performed by relevant ICES work group). Some analysis for national purposes are performed on ad hoc basis**.**

Data processing
Evaluation of data accuracy (bias and precision): Taking in account very low impact of Lithuanian data to the overall estimations and limited resources evaluation of data accuracy is made ad hock **Editing and imputation methods:** Data imported into national system cannot be edited. If by request of European Commission or ICES some additional info is requested revised/modified data may be uploaded, however it strongly depends on information recorded in raw data logbooks. **Quality document associated to a dataset:** See Quality checks documentation. **Validation of the final dataset:** See Quality checks documentation

Sampling scheme identifier: NSEA pelagic trawlers

MS : LTU
Region: North Sea and Eastern Arctic
Sampling scheme identifier: NSEA pelagic trawlers.
Sampling scheme type: Commercial fishing trip
Observation type: SelfAtSea
Time period of validity: 2025 -2027
Short description (max 100 words): The scheme aiming to collect length and weight samples of redfish (*Sebastes mentella*) from Lithuanian trawlers fishing in FAO areas 27.1 and 27.2.
Description of the population: One vessel was fished for redfish in this area until 2023. This vessel is scrapped now. According to verbal statement of vessel operator it is not clear which vessel substitute (if any). However, *Sebastes mentella* is selected for sampling in NANSEA RWP 2025-2027.
Population targeted: One vessel was fished for redfish in this area until 2023. This vessel is scrapped now. According to verbal statement of vessel operator it is not clear which vessel substitute (if any). However, *Sebastes mentella* is selected for sampling in NANSEA RWP 2025-2027. **Population sampled:** All vessels from the target populations are included into sampling frame NSEA_PEL. **Stratification:** No
Sampling design and protocols
Sampling design description: The vessels are operated in distance waters and never made landings in Lithuania. Taking in account limited resources it is not possible to deploy scientific observers on board, therefore self-sampling by crew was chosen. Some educated crew members (fish masters, trawl masters, even captains) are instructed how to collect samples. PSU – vessel*trip, SSU – haul. **Is the sampling design compliant with the 4S principle?:** Partly. One PSU is selected randomly, at least 10 SSUs are randomly taken during the trip selected for sampling. Because one or two vessels are fished it is impossible to make simple random selection, therefore unequal probability random selection (UPSWOR) method is used. The sampling scheme fists to RDBES herarchy 1. **Regional coordination:** None **Link to sampling design documentation:** 04_Tolimi_vandenys Sampling design documentation designated for local use only, so it is in Lithuanian language. **Design follows international recommendations:** NA **Link to sampling protocol documentation:** 04_Tolimi_vandenys Sampling design documentation designated for local use only, so it is in Lithuanian language. **Protocol follows international recommendations:** NA
Sampling implementation

Recording of refusal rate: NA, because everything is agreed depending on situation, no refusals observed

Monitoring of sampling progress within the sampling year: NA

Data capture

Means of data capture: Length measurements made by measuring board; weight measuring by digital scales (Kern); sex determination visually, maturity determination visually; age determination by mainly by otolith reading, for some species by scales reading. Depending on species otoliths are prepared Struers Miniton or by brake and burn method then analysed using trinocular Motic.

Data capture documentation: Data capture is going in three phases:

1. Sampling protocols contains excel workbook where the sampler enters raw data.
2. Tabling of raw data into pre-importing excel workbook. This workbook contains four tables with information on sampled fishing trip, sampled hauls, catches and measurements. Initial design of this workbook was adapted to RDB formats, but now additional info is added to enable create RDBES tables.
3. Checking and importation of data integrated into final data base of primary samples (01_VERSLINIAI). More info in "Data storage and "Quality checks"

Quality checks documentation: Quality checks are integrated into all phases of data capture. After entering raw data in the excel workbook, first consistency check is performed indicating if there are no individual weight for some observed length groups, o sample weight is missing. Some data validation rules as dates consistency, data formats, are integrated into pre-importing excel workbook. After data are tabled in this workbook the error checking is performed by R-script. This script allows to find missed values, to correct codes, to find externalities and other. The script is always updated depending on errors discovered, For the moment this script allows to find 8 types of errors.

Data storage

National database: After error check is performed data are imported into national data storage system in KU SharePoint. Since it contains confidential data, information is saved in encrypted zip file. VERSLINIAI.zip. Short description in English struktura_versl - Anglų.docx

International database: Data are uploading into relevant ICES data portals

Quality checks and data validation documentation: See Quality checks documentation

Sample storage

Storage description: See National data base.

Sample analysis: Consistency of samples is analysed during error checks. No additional sample analysis for stock subject to ICES (the analysis performed by relevant ICES work group). Some analysis for national purposes are performed on ad hoc basis**.**

Data processing

Evaluation of data accuracy (bias and precision): Taking in account very low impact of Lithuanian data to the overall estimations and limited resources evaluation of data accuracy is made ad hock

Editing and imputation methods: Data imported into national system can not be edited. If by request of European Commission or ICES some additional info is requested revised/modified data may be uploaded, however it strongly depends on information recorded in raw data logbooks.

Quality document associated to a dataset: See Quality checks documentation.

Validation of the final dataset: See Quality checks documentation

Sampling scheme identifier: NSEA shrimp trawlers

MS: LTU

Region: North Sea and Eastern Arctic

Sampling scheme identifier: NSEA shrimp trawlers.

Sampling scheme type: Commercial fishing trip

Observation type: SelfAtSea

Time period of validity: 2025 -2027

Short description (max 100 words): The scheme aiming to collect length and weight samples of shrimp (*Pandalus borealis)* from Lithuanian trawlers fishing in FAO areas 27.1 and 27.2. If trawls with collecting bags are used length and biological samples of cod (*Gadus morhua)* are taken.

Description of the population: Up two vessels are traditionally fished for shrimp during one calendar year. One vessel makes about 8 trips per year. If quotas for cod in the areas 1 and 2 are quired from other Member States, fishing is performed with trawls equipped with collecting bag.

Population targeted: The vessels fishing for shrimp (*Pandalus borealis)* from Lithuanian trawlers fishing in FAO areas 27.1 and 27.2. If trawls with collecting bags are used cod (*Gadus morhua)* is subject to sample.

Population sampled: All vessels from the target populations are included into sampling frame NSEA_PRA.

Stratification: No

Sampling design and protocols

Sampling design description: The vessels are operated in distance waters and never made landings in Lithuania. Taking in account limited resources it is not possible to deploy scientific observers on board, therefore self-sampling by crew was chosen. Some educated crew members (fish masters, trawl masters, even captains) are instructed how to collect samples. PSU – vessel*trip, SSU – haul.

Is the sampling design compliant with the 4S principle?: Partly. One PSU is selected randomly, at least 10 SSUs are randomly taken during the trip selected for sampling. Because one or two vessels are fished it is impossible to make simple random selection, therefore unequal probability random selection (UPSWOR) method is used. The sampling scheme fists to RDBES herarchy 1.

Regional coordination: None

Link to sampling design documentation: 04_Tolimi_vandenys Sampling design documentation designated for local use only, so it is in Lithuanian language.

Design follows international recommendations: NA

Link to sampling protocol documentation: 04_Tolimi_vandenys Sampling design documentation designated for local use only, so it is in Lithuanian language.

Protocol follows international recommendations: NA

Sampling implementation

Recording of refusal rate: NA, because everything is agreed depending on situation, no refusals observed.

Monitoring of sampling progress within the sampling year: NA

Data capture

Means of data capture: Length measurements made by measuring board; weight measuring by digital scales (Kern); sex determination visually, maturity determination visually; age determination by mainly by otolith reading, for some species by scales reading. Depending on species otoliths are prepared Struers Miniton or by brake and burn method then analysed using trinocular Motic.

Data capture documentation: Data capture is going in three phases:

1. Sampling protocols contains excel workbook where the sampler enters raw data.
2. Tabling of raw data into pre-importing excel workbook. This workbook contains four tables with information on sampled fishing trip, sampled hauls, catches and measurements. Initial design of this workbook was adapted to RDB formats, but now additional info is added to enable create RDBES tables.
3. Checking and importation of data integrated into final data base of primary samples (01_VERSLINIAI). More info in “Data storage and “Quality checks”

Quality checks documentation: Quality checks are integrated into all phases of data capture. After entering raw data in the excel workbook, first consistency check is performed indicating if there are no individual weight for some observed length groups, o sample weight is missing. Some data validation rules as dates consistency, data

formats, are integrated into pre-importing excel workbook. After data are tabled in this workbook the error checking is performed by R-script. This script allows to find missed values, to correct codes, to find externalities and other. The script is always updated depending on errors discovered, For the moment this script allows to find 8 types of errors.
Data storage
National database: After error check is performed data are imported into national data storage system in KU SharePoint. Since it contains confidential data, information is saved in encrypted zip file. VERSLINIAI.zip. Short description in English struktura_versl - Anglų.docx **International database:** Data are uploading into relevant ICES data portals **Quality checks and data validation documentation:** See Quality checks documentation
Sample storage
Storage description: See National data base. **Sample analysis:** Consistency of samples is analysed during error checks. No additional sample analysis for stock subject to ICES (the analysis performed by relevant ICES work group). Some analysis for national purposes is performed on ad hoc basis**.**
Data processing
Evaluation of data accuracy (bias and precision): Taking in account very low impact of Lithuanian data to the overall estimations and limited resources evaluation of data accuracy is made ad hock **Editing and imputation methods:** Data imported into national system cannot be edited. If by request of European Commission or ICES some additional info is requested revised/modified data may be uploaded, however it strongly depends on information recorded in raw data logbooks. **Quality document associated to a dataset:** See Quality checks documentation. **Validation of the final dataset:** See Quality checks documentation

Sampling scheme identifier: NEA pelagic trawlers

MS: LTU
Region: North-East Atlantic
Sampling scheme identifier: NEA pelagic trawlers.
Sampling scheme type: Commercial fishing trip
Observation type: SelfAtSea
Time period of validity: 2025 -2027
Short description (max 100 words): The scheme aiming to collect length and weight samples of pelagic fishes from Lithuanian trawlers fishing in this region.
Description of the population: NANSEA RWP 2025-2027 selected blue whiting (*Micromesistius poutassou*) for sampling. One vessel is fishing for pelagic species in this region. According to quota allocation key Lithuania has just few tons of available quota for some fish stocks, but not for blue whiting. Fishing activity depends on quota acquired from other Member States.
Population targeted: One vessel is fishing for pelagic species in this region. **Population sampled:** All vessels from the target populations are included into sampling frame NEA_PEL. **Stratification:** No
Sampling design and protocols
Sampling design description: The vessel is operated in distance waters and never made landings in Lithuania. Taking in account limited resources it is not possible to deploy scientific observers on board, therefore self-

sampling by crew was chosen. Some educated crew members (fish masters, trawl masters, even captains) are instructed how to collect samples. PSU – vessel*trip, SSU – haul.

Is the sampling design compliant with the 4S principle?: Partly. One PSU is selected randomly, at least 10 SSUs are randomly taken during the trip selected for sampling. Because one or two vessels are fished it is impossible to make simple random selection, therefore unequal probability random selection (UPSWOR) method is used. The sampling scheme fists to RDBES herarchy 1.

Regional coordination: None

Link to sampling design documentation: 04_Tolimi_vandenys Sampling design documentation designated for local use only, so it is in Lithuanian language.

Design follows international recommendations: NA

Link to sampling protocol documentation: 04_Tolimi_vandenys Sampling design documentation designated for local use only, so it is in Lithuanian language.

Protocol follows international recommendations: NA

Sampling implementation

Recording of refusal rate: NA, because everything is agreed depending on situation, no refusals observed

Monitoring of sampling progress within the sampling year: NA

Data capture

Means of data capture: Length measurements made by measuring board; weight measuring by digital scales (Kern); sex determination visually, maturity determination visually; age determination by mainly by otolith reading, for some species by scales reading. Depending on species otoliths are prepared Struers Miniton or by brake and burn method then analysed using trinocular Motic.

Data capture documentation: Data capture is going in three phases:

1. Sampling protocols contains excel workbook where the sampler enters raw data.
2. Tabling of raw data into pre-importing excel workbook. This workbook contains four tables with information on sampled fishing trip, sampled hauls, catches and measurements. Initial design of this workbook was adapted to RDB formats, but now additional info is added to enable create RDBES tables.
3. Checking and importation of data integrated into final data base of primary samples (01_VERSLINIAI). More info in “Data storage and “Quality checks”

Quality checks documentation: Quality checks are integrated into all phases of data capture. After entering raw data in the excel workbook, first consistency check is performed indicating if there are no individual weight for some observed length groups, o sample weight is missing. Some data validation rules as dates consistency, data formats, are integrated into pre-importing excel workbook. After data are tabled in this workbook the error checking is performed by R-script. This script allows to find missed values, to correct codes, to find externalities and other. The script is always updated depending on errors discovered, For the moment this script allows to find 8 types of errors.

Data storage

National database: After error check is performed data are imported into national data storage system in KU SharePoint. Since it contains confidential data, information is saved in encrypted zip file. VERSLINIAI.zip. Short description in English struktura_versl - Anglų.docx

International database: Data are uploading into relevant ICES data portals

Quality checks and data validation documentation: See Quality checks documentation

Sample storage

Storage description: See National data base.

Sample analysis: Consistency of samples is analysed during error checks. No additional sample analysis for stock subject to ICES (the analysis performed by relevant ICES work group). Some analysis for national purposes are performed on ad hoc basis**.**

Data processing

Evaluation of data accuracy (bias and precision): Taking in account very low impact of Lithuanian data to the overall estimations and limited resources evaluation of data accuracy is made ad hock

Editing and imputation methods: Data imported into national system cannot be edited. If by request of European Commission or ICES some additional info is requested revised/modified data may be uploaded, however it strongly depends on information recorded in raw data logbboks.

Quality document associated to a dataset: See Quality checks documentation.

Validation of the final dataset: See Quality checks documentation

Sampling scheme identifier: NEA shrimp trawlers

MS: LTU

Region: North-East Atlantic

Sampling scheme identifier: NEA shrimp trawlers.

Sampling scheme type: Commercial fishing trip

Observation type: SelfAtSea

Time period of validity: 2025 -2027

Short description (max 100 words): The scheme aiming to collect length and weight samples of shrimp (*Pandalus borealis)* from Lithuanian trawlers fishing in FAO areas 27.5 and 27.14.

Description of the population: One vessel is fishing for shrimp in this region.

Population targeted: One vessel fishing for shrimp in this region.

Population sampled: All vessels from the target populations are included into sampling frame NEA_PRA.

Stratification: No

Sampling design and protocols

Sampling design description: The vessels are operated in distance waters and never made landings in Lithuania. Taking in account limited resources it is not possible to deploy scientific observers on board, therefore self-sampling by crew was chosen. Some educated crew members (fish masters, trawl masters, even captains) are instructed how to collect samples. PSU – vessel*trip, SSU – haul.

Is the sampling design compliant with the 4S principle?: Partly. One PSU is selected randomly, at least 10 SSUs are randomly taken during the trip selected for sampling. Because one or two vessels are fished it is impossible to make simple random selection, therefore unequal probability random selection (UPSWOR) method is used. The sampling scheme fists to RDBES herarchy 1.

Regional coordination: None

Link to sampling design documentation: 04_Tolimi_vandenys Sampling design documentation designated for local use only, so it is in Lithuanian language.

Design follows international recommendations: NA

Link to sampling protocol documentation: 04_Tolimi_vandenys Sampling design documentation designated for local use only, so it is in Lithuanian language.

Protocol follows international recommendations: NA

Sampling implementation

Recording of refusal rate: NA, because everything is agreed depending on situation, no refusals observed

Monitoring of sampling progress within the sampling year: NA

Data capture

Means of data capture: Length measurements made by measuring board; weight measuring by digital scales (Kern); sex determination visually, maturity determination visually; age determination by mainly by otolith

reading, for some species by scales reading. Depending on species otoliths are prepared Struers Miniton or by brake and burn method then analysed using trinocular Motic.

Data capture documentation: Data capture is going in three phases:

1. Sampling protocols contains excel workbook where the sampler enters raw data.
2. Tabling of raw data into pre-importing excel workbook. This workbook contains four tables with information on sampled fishing trip, sampled hauls, catches and measurements. Initial design of this workbook was adapted to RDB formats, but now additional info is added to enable create RDBES tables.
3. Checking and importation of data integrated into final data base of primary samples (01_VERSLINIAI). More info in "Data storage and "Quality checks"

Quality checks documentation: Quality checks are integrated into all phases of data capture. After entering raw data in the excel workbook, first consistency check is performed indicating if there are no individual weight for some observed length groups, o sample weight is missing. Some data validation rules as dates consistency, data formats, are integrated into pre-importing excel workbook. After data are tabled in this workbook the error checking is performed by R-script. This script allows to find missed values, to correct codes, to find externalities and other. The script is always updated depending on errors discovered, For the moment this script allows to find 8 types of errors.

Data storage

National database: After error check is performed data are imported into national data storage system in KU SharePoint. Since it contains confidential data, information is saved in encrypted zip file. VERSLINIAI.zip. Short description in English struktura_versl - Anglų.docx

International database: Data are uploading into relevant ICES data portals

Quality checks and data validation documentation: See Quality checks documentation

Sample storage

Storage description: See National data base.

Sample analysis: Consistency of samples is analysed during error checks. No additional sample analysis for stock subject to ICES (the analysis performed by relevant ICES work group). Some analysis for national purposes are performed on ad hoc basis**.**

Data processing

Evaluation of data accuracy (bias and precision): Taking in account very low impact of Lithuanian data to the overall estimations and limited resources evaluation of data accuracy is made ad hock

Editing and imputation methods: Data imported into national system cannot be edited. If by request of European Commission or ICES some additional info is requested revised/modified data may be uploaded, however it strongly depends on information recorded in raw data logbooks.

Quality document associated to a dataset: See Quality checks documentation.

Validation of the final dataset: See Quality checks documentation

Sampling scheme identifier: NAFO shrimp trawlers

MS: LTU

Region: Other regions

Sampling scheme identifier: NAFO shrimp trawlers.

Sampling scheme type: Commercial fishing trip

Observation type: SelfAtSea

Time period of validity: 2025 -2027

Short description (max 100 words): The scheme aiming to collect length and weight samples of shrimp (*Pandalus borealis)* from Lithuanian trawlers fishing in NAFO regulation area.

Description of the population: One vessel was fishing for shrimp in this region until 2022.

Population targeted: One vessel fishing for shrimp in this region. However, since 2022 was introduced 0 quotas for shrimp in NAFO area 3M, so if it continues no target population will exist.

Population sampled: All vessels from the target populations are included into sampling frame NAFO_PRA.

Stratification: No

Sampling design and protocols

Sampling design description: The vessels are operated in distance waters and never made landings in Lithuania. Taking in account limited resources it is not possible to deploy scientific observers on board, therefore self-sampling by crew was chosen. Some educated crew members (fish masters, trawl masters, even captains) are instructed how to collect samples. PSU – vessel*trip, SSU – haul.

Is the sampling design compliant with the 4S principle?: Partly. One PSU is selected randomly, at least 10 SSUs are randomly taken during the trip selected for sampling. Because one or two vessels are fished it is impossible to make simple random selection, therefore unequal probability random selection (UPSWOR) method is used. The sampling scheme fists to RDBES herarchy 1.

Regional coordination: None

Link to sampling design documentation: 04_Tolimi_vandenys Sampling design documentation designated for local use only, so it is in Lithuanian language.

Design follows international recommendations: NA

Link to sampling protocol documentation: 04_Tolimi_vandenys Sampling design documentation designated for local use only, so it is in Lithuanian language.

Protocol follows international recommendations: NA

Sampling implementation

Recording of refusal rate: NA, because everything is agreed depending on situation, no refusals observed.

Monitoring of sampling progress within the sampling year: NA

Data capture

Means of data capture: Length measurements made by measuring board; weight measuring by digital scales (Kern); sex determination visually, maturity determination visually; age determination by mainly by otolith reading, for some species by scales reading. Depending on species otoliths are prepared Struers Miniton or by brake and burn method then analysed using trinocular Motic.

Data capture documentation: Data capture is going in three phases:

1. Sampling protocols contains excel workbook where the sampler enters raw data.
2. Tabling of raw data into pre-importing excel workbook. This workbook contains four tables with information on sampled fishing trip, sampled hauls, catches and measurements. Initial design of this workbook was adapted to RDB formats, but now additional info is added to enable create RDBES tables.
3. Checking and importation of data integrated into final data base of primary samples (01_VERSLINIAI). More info in “Data storage and “Quality checks”

Quality checks documentation: Quality checks are integrated into all phases of data capture. After entering raw data in the excel workbook, first consistency check is performed indicating if there are no individual weight for some observed length groups, o sample weight is missing. Some data validation rules as dates consistency, data formats, are integrated into pre-importing excel workbook. After data are tabled in this workbook the error checking is performed by R-script. This script allows to find missed values, to correct codes, to find externalities and other. The script is always updated depending on errors discovered, For the moment this script allows to find 8 types of errors.

Data storage

National database: After error check is performed data are imported into national data storage system in KU SharePoint. Since it contains confidential data, information is saved in encrypted zip file. VERSLINIAI.zip. Short description in English struktura_versl - Anglų.docx

International database: Data are uploading into relevant ICES data portals **Quality checks and data validation documentation:** See Quality checks documentation
Sample storage
Storage description: See National data base. **Sample analysis:** Consistency of samples is analysed during error checks. No additional sample analysis for stock subject to ICES (the analysis performed by relevant ICES work group). Some analysis for national purposes are performed on ad hoc basis**.**
Data processing
Evaluation of data accuracy (bias and precision): Taking in account very low impact of Lithuanian data to the overall estimations and limited resources evaluation of data accuracy is made ad hock **Editing and imputation methods:** Data imported into national system can not be edited. If by request of European Commission or ICES some additional info is requested revised/modified data may be uploaded, however it strongly depends on information recorded in raw data logbooks. **Quality document associated to a dataset:** See Quality checks documentation. **Validation of the final dataset:** See Quality checks documentation

Related to Table 2.3 and Text Box 2.3 (diadromous data collection)

Sampling scheme identifier: Eel water body commercial

MS: LTU
Region: Baltic Sea
Sampling scheme identifier: Eel water body commercial
Sampling scheme type: Diadromous (commercial)
Observation type: SciObs water body
Time period of validity: 2025-2027
Short description (max 100 words): To collect biological data for European eel (*Anguilla anguilla*) from commercial catches in Curonian lagoon
Description of the population: All inland waters (rivers and lakes) together with Curonian lagoon are designated as one eel management unit (EMU – LT-total). Control of fishing effort and catches (including eel) in inland waters and Curonian lagoon is based on limitation of legal persons and fishing gears, not the number of vessels. Fishing gear mesh sizes, fishing periods and other technical measures are defined in the "Rules for commercial fishing in inland waters and Curonian lagoon" adopted by Ministry of Environment. Licences for fishing gears in a certain water body are issued to the legal persons by Ministry of Agriculture, while control of actual effort, implementation of technical measures, as well as catch control is responsibility of Environment Ministry.
Population targeted: Legal persons having licences for fishing by eel fyke nets in Curonian lagoon (47 legal persons had licences for 178 eel fyke nets in 2023). Eel fyke nets may by operated form 21st of April to 15 of September in Curonian lagoon **Population sampled:** Two sampling sites are selected each year. **Stratification:** None.
Sampling design and protocols
Sampling design description: PSU is legal person*landing. Two legal persons from list of eel fyke nets licence holders are selected each year. **Is the sampling design compliant with the 4S principle?:** NA **Regional coordination:** None

Link to sampling design documentation: All documentation available in KU SharePoint. monitoringo vietu pagrindimas vv ir marių vietose.docx **Design follows international recommendations:**. Y, WGEEL **Link to sampling protocol documentation:** monitoringo vietu pagrindimas vv ir marių vietose.docx **Protocol follows international recommendations:** Y, WGEEL
Sampling implementation
Recording of refusal rate: NA **Monitoring of sampling progress within the sampling year:** NA
Data capture
Means of data capture: For length measurements measuring board with millimetre increments is used and electronic scales for weight measurements. Age is determined by viewing the scales with microscope-binocular. **Data capture documentation:** Data capture is going in two phases: 1. Manual entering of data in raw data logbook/sheet. It contains raw data on measuring, vessel detail, gear detail, geographical info. 2. Tabling of raw data into excel workbook designed according to ICES data calls. **Quality checks documentation:** Quality checks are integrated into excel workbooks
Data storage
National database: All documentation available in KU SharePoint UNGURYS **International database:** WGEEL **Quality checks and data validation documentation:** Quality checks are integrated into excel workbooks
Sample storage
Storage description: NA **Sample analysis:** NA
Data processing
Evaluation of data accuracy (bias and precision): NA **Editing and imputation methods:** NA **Quality document associated to a dataset: Validation of the final dataset:** NA

Sampling scheme identifier: Eel water body scientific

MS: LTU
Region: Baltic Sea
Sampling scheme identifier: Eel water body scientific
Sampling scheme type: Diadromous (scientific)
Observation type: SciObs water body
Time period of validity: 2025-2027
Short description (max 100 words): To collect biological data for European eel (*Anguilla anguilla*) from commercial catches in Curonian lagoon
Description of the population: All inland waters (rivers and lakes) together with Curonian lagoon are designated as one eel management unit (EMU – LT-total). Control of fishing effort and catches (including eel) in inland waters and Curonian lagoon is based on limitation of legal persons and fishing gears, not the number of vessels.

Fishing gear mesh sizes, fishing periods and other technical measures are defined in the "Rules for commercial fishing in inland waters and Curonian lagoon" adopted by Ministry of Environment. Licences for fishing gears in a certain water body are issued to the legal persons by Ministry of Agriculture, while control of actual effort, implementation of technical measures, as well as catch control is responsibility of Environment Ministry.

Population targeted: Legal persons having licences for fishing by eel fyke nets in rivers and lakes.

Number of licences for eel traps in rivers and lakes is constantly decreasing in 2018 it was 39 eel traps licences for 29 legal persons, in 2023 only 18 eel traps for 17 legal persons. The discussions on moratorium of eel fishing in lakes and rivers is ongoing now. Fishing period for use of eel traps in rivers and lakes is from 15th of March until 1st of June.

Population sampled: Two sampling sites are selected each year.

Stratification: None.

Sampling design and protocols

Sampling design description: PSU is eel trap*set. Agreement with two legal persons holding licences for fishing for eel with traps in rivers and lakes shall be made. The time of set will be chosen by responsible researcher.

Is the sampling design compliant with the 4S principle?: NA

Regional coordination: None

Link to sampling design documentation: All documentation available in KU SharePoint. monitoringo vietu pagrindimas vv ir marių vietose.docx

Design follows international recommendations:. Y, WGEEL

Link to sampling protocol documentation: monitoringo vietu pagrindimas vv ir marių vietose.docx

Protocol follows international recommendations: Y, WGEEL

Sampling implementation

Recording of refusal rate: NA

Monitoring of sampling progress within the sampling year: NA

Data capture

Means of data capture: For length measurements measuring board with millimetre increments is used and electronic scales for weight measurements. Age is determined by viewing the scales with microscope-binocular.

Data capture documentation:

Data capture is going in two phases:

1. Manual entering of data in raw data logbook/sheet. It contains raw data on measuring, vessel detail, gear detail, geographical info.
2. Tabling of raw data into excel workbook designed according to ICES data calls.

Quality checks documentation: Quality checks are integrated into excel workbooks

Data storage

National database: All documentation available in KU SharePoint UNGURYS

International database: WGEEL

Quality checks and data validation documentation: Quality checks are integrated into excel workbooks

Sample storage

Storage description: NA

Sample analysis: NA

Data processing

Evaluation of data accuracy (bias and precision): NA

Editing and imputation methods: NA

Quality document associated to a dataset: Validation of the final dataset: NA

Sampling scheme identifier: Diadromous water body scientific parr

MS : LTU
Region: Baltic Sea
Sampling scheme identifier: Diadromous water body scientific parr
Sampling scheme type: Diadromous (scientific)
Observation type: SciObs water body
Time period of validity: 2025-2027
Short description (max 100 words): sampling scheme aiming at collecting data of *Salmo salar* (Atalantic salmon) and *Salmo trutta* (Sea trout) parr densities in selected rivers using electrofishing. The scheme covers important parr rearing areas. Parr densities of salmonids are sampled annually in 5 river catchments and their tributaries inhabited by *Atlantic salmon* and Sea trout. Salmonids' parr densities are sampled in 100 sites annually also biological data (length, weight) is collected.
Description of the population : The target species are Atlantic salmon and sea trout. The survey takes place in permanent areas in rivers that flow into the Baltic Sea
Population targeted: The target species are wild Atlantic salmon and sea trout parrs. **Population sampled:** Sampling is focused on salmonid parr (*Salmo salar* and *Salmo trutta*). **Stratification:** Parr densities are studied and presented by species (*Salmo salar, Salmo trutta*) for each river and each sampling site at the river.
Sampling design and protocols
Sampling design description: The use sampling method of salmonid parr densities in rivers is electro-fishing. All study sites are electro-fished two or three (if needed) times to calculate fishing efficiency and parr densities and are presented as individuals per 100 m2. **Is the sampling design compliant with the 4S principle?:** Y **Regional coordination:** None **Link to sampling design documentation:** vidaus_vandenu_tyrimai_AM.pdf **Design follows international recommendations:** Y **Link to sampling protocol documentation:** The sampling protocol is based on Bohlin et al 1989 (Electrofishing – Theory and practice with special emphasis on salmonids. Hydrobiologia 173: 9 – 43) article that is modified according to the local needs and this modified methodology is accepted by ICES WGBAST (ICES C.M. 2014/ACOM:08). **Protocol follows international recommendations:** Y
Sampling implementation
Recording of refusal rate: NA **Monitoring of sampling progress within the sampling year:** High water levels in rivers could hinder the sampling. By extending the collection period of sampling, the period of favourable conditions may also be extended.
Data capture
Means of data capture: Portable backpack-type electro-fishing device, measuring board with millimeter increments, scales with 0,1g increments **Data capture documentation:**

Data capture is going in three phases:

1. Manual entering of data in raw data logbook/sheet. It contains raw data on measuring, vessel detail, gear detail, geographical info.
2. Tabling of raw data into pre-importing excel workbook. This workbook contains four tables with information on sampled fishing trip, sampled hauls, catches and measurements. Initial design of this workbook was adapted to RDB formats, but now additional info is added to enable create RDBES tables.
3. Checking and importation of data integrated into final data base of primary samples (01_VERSLINIAI). More info in "Data storage and "Quality checks"

Quality checks documentation: Quality checks are integrated into 2nd and 3rd phases of data capture. Some data validation rules as dates consistency, data formats, are integrated into pre-importing excel workbook. After data are tabled in this workbook the error checking is performed by R-script. This script allows to find missed values, to correct codes, to find externalities and other. The script is always updated depending on errors discovered, For the moment this script allows to find 8 types of errors.

Data storage

National database: After error check is performed data are imported into national data storage system in KU SharePoint 04_PRAEIVES

International database: Data is collected through the data calls is stored in ICES WGBAST database.

Quality checks and data validation documentation: See Quality checks documentation

Sample storage

Storage description: Scales of salmonids occasionally are collected for age to determine the age of the individual. Age-registering samples are stored in the KU-MRI archive permanently. The archive is accessible to the staff of KU_MRI and another scientist on request.

Sample analysis: Sea trout parr age determination is done following a guide to the interpretation of sea trout scales 112_Elliott.pdf

Data processing

Evaluation of data accuracy (bias and precision): Taking in account very low impact of Lithuanian data to the overall estimations and limited resources evaluation of data accuracy is made ad hock

Editing and imputation methods: Data imported into national system cannot be edited. If by request of European Commission or ICES some additional info is requested revised/modified data may be uploaded, however it strongly depends on information recorded in raw data logbooks.

Quality document associated to a dataset: See Quality checks documentation.

Validation of the final dataset: See Quality checks documentation

Sampling scheme identifier: Diadromous water body scientific smolt

MS : LTU

Region: Baltic Sea

Sampling scheme identifier: Diadromous water body scientific smolt

Sampling scheme type: Diadromous (scientific)

Observation type: SciObs water body

Time period of validity: 2025-2027

Short description (max 100 words): The sampling scheme aims to estimate Atlantic salmon and Sea trout smolt production in 2 Nemunas catchment rivers (Veiviržas and Siesartis), using partial smolt trap and mark-recapture method. Caught smolt data will be used to create a recruitment model for the Atlantic salmon population in Nemunas Catchment Rivers. Currently, salmonid smolt production is calculated from a parr density.

Description of the population: wild Atlantic salmon and sea trout smolts

Population targeted: The target species are wild Atlantic salmon and sea trout smolts.

Population sampled: Only descending salmonid (Salmo salar and Salmo trutta) smolts are sampled.

Stratification: Salmo salar and Salmo trutta smolt abundance are estimated separately.

Sampling design and protocols

Sampling design description: *Salmo salar* and *Salmo trutta* smolt abundancy is calculated from a parr density. Smolts are caught by trap-net in the river throughout the migration season. Captured smolts length, weight measured, and scales sampled for determining age. Smolts also are tagged with T-bar tag and released. But overall smolt production is calculated from electrofishing parr densities. Only *Salmo salar* and *Salmo trutta* smolts are studied, all other fish are released back.

Is the sampling design compliant with the 4S principle?: NA

Regional coordination: N

Link to sampling design documentation: vidaus_vandenu_tyrimai_AM.pdf

Design follows international recommendations: Y

Link to sampling protocol documentation: Caught descending salmonid smolts length and weight are measured. Also sample of scales are taken to determine age.

Protocol follows international recommendations: Y

Sampling implementation

Recording of refusal rate: NA

Monitoring of sampling progress within the sampling year: Often, high water levels and a large amount of debris in the water column (old leaf, branches) do not allow a proper assessment of smolt abundance, as the trap is pulled out in adverse hydrological conditions.

Data capture

Means of data capture: The data is collected indicating the date of fishing, the place, total time length of days the smolt trap was set up, species, length, and weight of each individual.

Data capture documentation:

Data capture is going in three phases:

1. Manual entering of data in raw data logbook/sheet. It contains raw data on measuring, vessel detail, gear detail, geographical info.
2. Tabling of raw data into pre-importing excel workbook. This workbook contains four tables with information on sampled fishing trip, sampled hauls, catches and measurements. Initial design of this workbook was adapted to RDB formats, but now additional info is added to enable create RDBES tables.
3. Checking and importation of data integrated into final data base of primary samples (01_VERSLINIAI). More info in "Data storage and "Quality checks"

Quality checks documentation: Quality checks are integrated into 2nd and 3rd phases of data capture. Some data validation rules as dates consistency, data formats, are integrated into pre-importing excel workbook. After data are tabled in this workbook the error checking is performed by R-script. This script allows to find missed values, to correct codes, to find externalities and other. The script is always updated depending on errors discovered, For the moment this script allows to find 8 types of errors.

Data storage

National database: After error check is performed data are imported into national data storage system in KU SharePoint 04_PRAEIVES

International database: Data is collected through the data calls is stored in ICES WGBAST database.

Quality checks and data validation documentation: See Quality checks documentation

Sample storage

Storage description: Scales of salmonids occasionally are collected for age to determine the age of the individual. Age-registering samples are stored in the KU-MRI archive permanently. The archive is accessible to the staff of KU_MRI and another scientist on request.

Sample analysis:

Sea trout parr age determination is done following a guide to the interpretation of sea trout scales

112_Elliott.pdf

Data processing

Evaluation of data accuracy (bias and precision):

Taking in account very low impact of Lithuanian data to the overall estimations and limited resources evaluation of data accuracy is made ad hock

Editing and imputation methods:

Data imported into national system cannot be edited. If by request of European Commission or ICES some additional info is requested revised/modified data may be uploaded, however it strongly depends on information recorded in raw data logbooks.

Quality document associated to a dataset: See Quality checks documentation.

Validation of the final dataset: See Quality checks documentation

Sampling scheme identifier: Diadromous water body scientific adult

MS : LTU

Region: Baltic Sea

Sampling scheme identifier: Diadromous water body scientific adult

Sampling scheme type: Diadromous (scientific)

Observation type: SciObs water body

Time period of validity: 2025-2027

Short description (max 100 words): the sampling scheme aims to collect data on the abundance of ascending *Salmo salar* and *Salmo trutta* adults in River Nemunas and its tributaries.

Description of the population *Salmo salar* and *Salmo trutta*. The survey takes place in Nemunas River Catchment.

Population targeted: The target species are *Salmo salar* and *Salmo trutta*. The survey takes place in Nemunas River Catchment.

Population sampled: Ascending salmonid (*Salmo salar* and *Salmo trutta*) adults are sampled.

Stratification: Salmo salar and Salmo trutta adult's abundance are estimated separately.

Sampling design and protocols

Sampling design description: *Salmo salar* and *Salmo trutta* begin to migrate to the lower reaches of the Nemunas in the second half of summer. Salmon and sea trout are sampled by gill nets at three locations once per season. At the beginning of autumn, the ARIS Explorer imaging sonar is installed in the riverbed and captures the ascending adult. A survey of ascending adults lasts until the end of November. Gathered records are reviewed and verified by an employee of the KU-MRI.

Is the sampling design compliant with the 4S principle?: Y

Regional coordination: N

Link to sampling design documentation: vidaus_vandenu_tyrimai_AM.pdf

Design follows international recommendations: Sampling design and protocols were not developed as part of a regional or multi-lateral agreement.

Link to sampling protocol documentation: With gillnets caught ascending salmonid adult length, weight are measured, and species and gender are determined. The sample of scales is taken to determine age.

Images recorded using ARIS Explorer imaging sonar are analysed by KU-MRI employees. If possible species, sex, and length are determined and the total amount of ascended adults is recorded.

Protocol follows international recommendations: Y

Sampling implementation

Recording of refusal rate: NA

Monitoring of sampling progress within the sampling year: ARIS explorer imaging sonar is installed in early October and dismantled at the end of November under suitable hydrological conditions. Autumn floods during the spawning migration often force the equipment to be dismantled to protect it from large drifts carried by the river.

Data capture

Means of data capture: Smolt trap net, measuring board with millimeter increments, scales with 0,1g increments Data collected with ARIS Explorer indicates; the date of recorded passing through the device, the place, species, length, total days ARIS EXPLORER was operating. The data with gillnets caught ascending salmonid adults indicates: species, length, weight, sex, and age (from scale samples).

Data capture documentation: Data capture is going in three phases:

4. Manual entering of data in raw data logbook/sheet. It contains raw data on measuring, vessel detail, gear detail, geographical info.
5. Tabling of raw data into pre-importing excel workbook. This workbook contains four tables with information on sampled fishing trip, sampled hauls, catches and measurements. Initial design of this workbook was adapted to RDB formats, but now additional info is added to enable create RDBES tables.
6. Checking and importation of data integrated into final data base of primary samples (01_VERSLINIAI). More info in " Data storage" and "Quality checks"

Quality checks documentation: Quality checks are integrated into 2nd and 3rd phases of data capture. Some data validation rules as dates consistency, data formats, are integrated into pre-importing excel workbook. After data are tabled in this workbook the error checking is performed by R-script. This script allows to find missed values, to correct codes, to find externalities and other. The script is always updated depending on errors discovered, For the moment this script allows to find 8 types of errors.

Data storage

National database: After error check is performed data are imported into national data storage system in KU SharePoint 04_PRAEIVES

International database: Data is collected through the data calls is stored in ICES WGBAST database.

Quality checks and data validation documentation: See Quality checks documentation

Sample storage

Storage description: Scales of salmonids occasionally are collected for age to determine the age of the individual. Age-registering samples are stored in the KU-MRI archive permanently. The archive is accessible to the staff of KU_MRI and another scientist on request.

Sample analysis: Sea trout parr age determination is done following a guide to the interpretation of sea trout scales 112_Elliott.pdf

Data processing

Evaluation of data accuracy (bias and precision): Taking in account very low impact of Lithuanian data to the overall estimations and limited resources evaluation of data accuracy is made ad hock

Editing and imputation methods: Data imported into national system cannot be edited. If by request of European Commission or ICES some additional info is requested revised/modified data may be uploaded, however it strongly depends on information recorded in raw data logbooks.

Quality document associated to a dataset: See Quality checks documentation.

Validation of the final dataset: See Quality checks documentation

Sampling scheme identifier: SWB-DIAD-REC

MS: LTU
Region: Baltic
Sampling scheme identifier: SWB-DIAD-REC
Sampling scheme type: Diadromous (recreational)
Observation type: Self water body
Time period of validity: 2025-2027
Short description (max 100 words): The study for evaluation of caught and/or released volumes of salmon, sea trout and eel will be conducted by interviewing residents of Lithuania engaged in recreation fishery in inland waters. Data also included the size (length, weight) of caught and/or released individuals.
Description of the population
Population targeted: The target population is residents of Lithuania and the proportion of anglers engaged in recreational fishery exclusively in inland waters of Lithuania. **Population sampled:** Over 1000 fishermen are planned to be interviewed. **Stratification:** Questionnaires aims to interview residents between 18 and 75 years old on annual basis.
Sampling design and protocols
Sampling design description: Interviews will be performed at the end calendar year when fishing season is over or at very beginning of new year. The methodology of questionnaires is available here: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://zudc.lt/drp-en/wp-content/uploads/sites/2/2024/04/Recreational-fishing-data-collection-methodology.pdf **Is the sampling design compliant with the 4S principle?:** N **Regional coordination:** N **Link to sampling design documentation:** chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://zudc.lt/drp-en/wp-content/uploads/sites/2/2024/04/Recreational-fishing-data-collection-methodology.pdf **Design follows international recommendations:** Y, ICES WKSMRF 2009 **Link to sampling protocol documentation:** chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://zudc.lt/drp-en/wp-content/uploads/sites/2/2024/04/Recreational-fishing-data-collection-methodology.pdf **Protocol follows international recommendations:** N chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://zudc.lt/drp-en/wp-content/uploads/sites/2/2024/04/Recreational-fishing-data-collection-methodology.pdf chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://zudc.lt/drp/wp-content/uploads/sites/3/2024/04/Ataskaita-galutine-Zuvininkyste-202401.pdf
Sampling implementation
Recording of refusal rate: NA **Monitoring of sampling progress within the sampling year:** NA
Data capture
Means of data capture: Off-site survey contact methods, e.g. mail, telephone, diaries, questionnaires, etc. (ICES WKSMRF 2009).

Data capture documentation: Manual for data collection from recreational fishery: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://zudc.lt/drp-en/wp-content/uploads/sites/2/2024/04/Recreational-fishing-data-collection-methodology.pdf

Quality checks documentation: Collected data are validated during after interviewing. Quality check procedures include cross-check of length-weight relationships of individual fish and water bodies where fish was captured for excluding illogical data. No detailed documentation publicly available. Short description on data analysis is presented in survey report: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://zudc.lt/drp/wp-content/uploads/sites/3/2024/04/Ataskaita-galutine-Zuvininkyste-202401.pdf

Data storage

National database: The data files are stored in Excel so far

International database: WGBAST

Quality checks and data validation documentation: primary data are stored in the database of poll company. Advanced data checks are applied, and data quality check report is produced: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://zudc.lt/drp/wpcontent/uploads/sites/3/2024/04/Ataskaita-galutine-Zuvininkyste-202401.pdf
No detailed documentation publicly available.

Sample storage

Storage description: NA

Sample analysis: NA

Data processing

Evaluation of data accuracy (bias and precision): Y. Statistical analysis of the data as well as data accuracy will be conducted by the poll company under supervision of Fisheries Service under the MoA. Data collected from the interviewing after processing and quality checks will be transmitted to WGBAST or relevant ICES data portals like RDBES or InterCatch

Editing and imputation methods:

Y. Statistical analysis of the data as well as data accuracy will be conducted by the poll company under supervision of Fisheries Service under the MoA. Data collected from the interviewing after processing and quality checks will be transmitted to WGBAST or relevant ICES data portals like RDBES or InterCatch. Data collected during the interviewing after processing and quality checks will be transmitted to WGBAST or relevant ICES data portals like RDBES or InterCatch.

Quality document associated to a dataset:

Advanced data checks are applied, and data quality check report is produced.

Validation of the final dataset:

Data quality is guaranteed by the poll company conducting the interviews. Length-weight relationships are validated using the length-weight key to check the correlation between length and weight of fish. The water bodies are also checked if certain species cannot be caught. Extrapolation and statistical analysis are provided and guaranteed by the poll company.

Related to Table 2.4 and Text Box 2.4 (recreational data collection)

Sampling scheme identifier: SAS-REC-OSS

MS: LTU
Region: Baltic
Sampling scheme identifier: SAS-REC-OSS
Sampling scheme type: recreational (on site surveys)
Observation type: SelfAtSea
Time period of validity: 2025-2027
Short description (max 100 words): Sampling scheme aiming at collecting catch volumes from recreational fishery at sea for all species listed in Table 4 of the EU MAP Delegated Decision annex. The scheme covers coastal area within Lithuanian Exclusive Economic zone of the Baltic Sea.
Description of the population
Population targeted: Survey at sea targeting inspection of catch for salmon, sea trout. During the surveys the target population is the number of both resident anglers and charter boats/vessels operating at sea. **Population sampled:** Surveys at sea are planned so that enable to cover days of high season. Only part of target population could be physically sampled and only on working days due to high number of trips performed by charter boats and/or private anglers. **Stratification:** There is no specific stratification of sampling, location, population, etc. Surveys at sea are performed on regular basis and focused on high season of salmon/sea trout fishery. Data collected during the surveys includes number of boats observed during the day of inspection, number of anglers and total catch by species (in kg and individuals) as well as size of fish in cm. Some procedures may be conducted on landing sites as extra measure.
Sampling design and protocols
Sampling design description: Sampling scheme intends to cover fishing season for salmon and sea trout fishery on monthly basis. The data on total number of boats/vessels at sea is available from border police register. The sampling methodology is available here: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://zudc.lt/drp-en/wp-content/uploads/sites/2/2024/04/Recreational-fishing-data-collection-methodology.pdf **Is the sampling design compliant with the 4S principle?:** N **Regional coordination:** N **Link to sampling design documentation:**

chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://zudc.lt/drp-en/wp-content/uploads/sites/2/2024/04/Recreational-fishing-data-collection-methodology.pdf

Design follows international recommendations: Y, ICES WKSMRF 2009

Link to sampling protocol documentation:

chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://zudc.lt/drp-en/wp-content/uploads/sites/2/2024/04/Recreational-fishing-data-collection-methodology.pdf

Protocol follows international recommendations: N

Sampling implementation

Recording of refusal rate: NA

Monitoring of sampling progress within the sampling year: NA

Data capture

Means of data capture: data record forms, protocols, interviews.

Data capture documentation: Manual for data collection from recreational fishery:

chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://zudc.lt/drp-en/wp-content/uploads/sites/2/2024/04/Recreational-fishing-data-collection-methodology.pdf

Quality checks documentation: Quality check procedures include cross-check of length-weight relationships of individual fish for excluding illogical data. No detailed documentation publicly available. The description on data analysis is presented in the manual: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://zudc.lt/drp-en/wp-content/uploads/sites/2/2024/04/Recreational-fishing-data-collection-methodology.pdf

Data storage

National database: The data files are stored in Excel so far

International database: WGBAST

Quality checks and data validation documentation: primary data are stored in the database (Excel format). Advanced data checks are applied to eliminate errors in the records. No detailed documentation publicly available.

Sample storage

Storage description: NA. During this survey biological samples will not be collected **Sample analysis:** NA. During this survey biological samples will not be analysed
Data processing
Evaluation of data accuracy (bias and precision): Evaluation of data accuracy is conducted by WGBAST. The results should be presented in the report of WGBFAS **Editing and imputation methods:** Y, Data collected during the survey after processing and quality checks will be transmitted to WGBAST or relevant ICES data portals like RDBES or InterCatch. Evaluation of data accuracy is conducted by WGBAST. The results should be presented in the report of WGBFAS **Quality document associated to a dataset:** Advanced data checks are applied, and data quality check report is produced. No detailed documentation publicly available **Validation of the final dataset:** final data set are stored in the database (Excel format so far). Advanced data checks are applied to eliminate errors in the records. Data after processing and quality checks will be transmitted to WGBAST or relevant ICES data portals like RDBES or InterCatch.

Related to Table 2.6 [and Text Box 2.6] (biological specific data collection)

Sampling scheme identifier: BITS_Q1

MS : DNK, DEU, LVA, LTU, POL, SWE
Region: Baltic Sea
Sampling scheme identifier: BITS_Q1
Sampling scheme type: Research survey at sea
Observation type: SciObsAtSea
Time period of validity: 2025-2027
Short description (max 100 words): BALTIC RWP 2025-2027 implementation years.
Description of the population
Population targeted: **Population sampled:** **Stratification:**
Sampling design and protocols
Sampling design description: **Is the sampling design compliant with the 4S principle?:** **Regional coordination:** **Link to sampling design documentation:** **Design follows international recommendations:** **Link to sampling protocol documentation:**

Protocol follows international recommendations:.
Sampling implementation
Recording of refusal rate: **Monitoring of sampling progress within the sampling year:**
Data capture
Means of data capture: **Data capture documentation:** **Quality checks documentation:**.
Data storage
National database: **International database:** **Quality checks and data validation documentation:**
Sample storage
Storage description: **Sample analysis:**
Data processing
Evaluation of data accuracy (bias and precision): **Editing and imputation methods:** **Quality document associated to a dataset:** **Validation of the final dataset:**

Sampling scheme identifier: BITS_Q4

MS : DNK, DEU, EST, LVA, LTU, POL, SWE
Region: Baltic Sea
Sampling scheme identifier: BITS_Q4
Sampling scheme type: Research survey at sea
Observation type: SciObsAtSea
Time period of validity: 2025-2027
Short description (max 100 words): BALTIC RWP 2025-2027 implementation years.
Description of the population
Population targeted: **Population sampled:** **Stratification:**
Sampling design and protocols
Sampling design description: **Is the sampling design compliant with the 4S principle?:** **Regional coordination:** **Link to sampling design documentation:** **Design follows international recommendations:** **Link to sampling protocol documentation:** **Protocol follows international recommendations:**.
Sampling implementation
Recording of refusal rate: **Monitoring of sampling progress within the sampling year:**
Data capture
Means of data capture: **Data capture documentation:**

Quality checks documentation:.
Data storage
National database: **International database:** **Quality checks and data validation documentation:**
Sample storage
Storage description: **Sample analysis:**
Data processing
Evaluation of data accuracy (bias and precision): **Editing and imputation methods:** **Quality document associated to a dataset:** **Validation of the final dataset:**

Sampling scheme identifier: BIAS

MS : DEU, EST, FIN, LVA, LTU, POL, SWE
Region: Baltic Sea
Sampling scheme identifier: BIAS
Sampling scheme type: Research survey at sea
Observation type: SciObsAtSea
Time period of validity: 2025-2027
Short description (max 100 words): BALTIC RWP 2025-2027 implementation years.
Description of the population
Population targeted: **Population sampled:** **Stratification:**
Sampling design and protocols
Sampling design description: **Is the sampling design compliant with the 4S principle?:** **Regional coordination:** **Link to sampling design documentation:** **Design follows international recommendations:** **Link to sampling protocol documentation:** **Protocol follows international recommendations:**.
Sampling implementation
Recording of refusal rate: **Monitoring of sampling progress within the sampling year:**
Data capture
Means of data capture: **Data capture documentation:** **Quality checks documentation:**.
Data storage
National database: **International database:** **Quality checks and data validation documentation:**
Sample storage

Storage description: **Sample analysis:**
Data processing
Evaluation of data accuracy (bias and precision): **Editing and imputation methods:** **Quality document associated to a dataset:** **Validation of the final dataset:**

Sampling scheme identifier: SPRAS

MS : DEU, EST, LVA, LTU, POL, SWE
Region: Baltic Sea
Sampling scheme identifier: SPRAS
Sampling scheme type: Research survey at sea
Observation type: SciObsAtSea
Time period of validity: 2025-2027
Short description (max 100 words): BALTIC RWP 2025-2027 implementation years.
Description of the population
Population targeted: **Population sampled:** **Stratification:**
Sampling design and protocols
Sampling design description: **Is the sampling design compliant with the 4S principle?:** **Regional coordination:** **Link to sampling design documentation:** **Design follows international recommendations:** **Link to sampling protocol documentation:** **Protocol follows international recommendations:**.
Sampling implementation
Recording of refusal rate: **Monitoring of sampling progress within the sampling year:**
Data capture
Means of data capture: **Data capture documentation:** **Quality checks documentation:**.
Data storage
National database: **International database:** **Quality checks and data validation documentation:**
Sample storage
Storage description: **Sample analysis:**
Data processing
Evaluation of data accuracy (bias and precision): **Editing and imputation methods:** **Quality document associated to a dataset:**

Validation of the final dataset:

Sampling scheme identifier: LT-CFS

MS: LTU
Region: Baltic Sea
Sampling scheme identifier: LT-CFS
Sampling scheme type: Research survey at sea
Observation type: SciObsAtSea
Time period of validity: 2025-2027
Short description (max 100 words): The objective of the LT-CFS survey is to monitor changes of the coastal fish communities in relation to the impact of climate change, eutrophication, toxic substances, fishery, habitat alteration and alien species. Data from the survey is used for fishery management in the coastal zone and for calculation and evaluation of HELCOM and Marine Strategy Framework Directive fish indicators
Description of the population
Population targeted: Commercial and non-commercial fish species and other hydro biotic organisms in the coastal zone of Lithuanian Territorial Sea. **Population sampled:** Diadromous, demersal, pelagic and invasive species. **Stratification:** NA.
Sampling design and protocols
Sampling design description: Four sampling stations for gillnet surveys, are sampled every month during the season free from ice. For juvenile survey 10 beach seine and dragging samples are taken during August-September. **Is the sampling design compliant with the 4S principle?:** N **Regional coordination:** N **Link to sampling design documentation:** Y. available in MRI SharePoint ; HELCOM Guidelines for coastal fish monitoring 2019; Thoresson,G. Guidelines For Coastal Fish Monitoring, 1996. **Link to sampling protocol documentation:** available in MRI SharePoint ; HELCOM Guidelines for coastal fish monitoring 2019; Thoresson,G. Guidelines For Coastal Fish Monitoring, 1996 **Protocol follows international recommendations:** Y. HELCOM.
Sampling implementation
Recording of refusal rate: NA **Monitoring of sampling progress within the sampling year:** NA
Data capture
Means of data capture: For gillnet surveys length and weight measurements made on field, data recorded on paper notebook, then into excel worksheet, then after some quality checks data stored on MRI share point as Rdata and csv files. For juvenile surveys catch is collected and measurements are carried out in the laboratory. Data are recorded into excel worksheet, then after some quality checks data stored on MRI share point as Rdata and csv files. **Data capture documentation:** available in MRI SharePoint ; HELCOM Guidelines for coastal fish monitoring 2019; Thoresson,G. Guidelines For Coastal Fish Monitoring, 1996.

Quality checks documentation: See chapter “Means of data capture”
Data storage
National database: See chapter “Means of data capture” **International database:** NA **Quality checks and data validation documentation:** See chapter “Means of data capture”
Sample storage
Storage description: in MRI SharePoint ; HELCOM Guidelines for coastal fish monitoring 2019; Thoresson,G. Guidelines For Coastal Fish Monitoring, 1996. **Sample analysis:** in MRI SharePoint ; HELCOM Guidelines for coastal fish monitoring 2019; Thoresson,G. Guidelines For Coastal Fish Monitoring, 1996.
Data processing
Evaluation of data accuracy (bias and precision): Y. in MRI SharePoint ; HELCOM Guidelines for coastal fish monitoring 2019; Thoresson,G. Guidelines For Coastal Fish Monitoring, 1996. **Editing and imputation methods: Y.** in MRI SharePoint ; HELCOM Guidelines for coastal fish monitoring 2019; Thoresson,G. Guidelines For Coastal Fish Monitoring, 1996. **Quality document associated to a dataset:** See chapter “Means of data capture” **Validation of the final dataset:** See chapter “Means of data capture”

Sampling scheme identifier: LT-BYCS

MS : LTU
Region: Baltic Sea
Sampling scheme identifier: LT-BYCS
Sampling scheme type: Research survey at sea
Observation type: : SciObsAtSea ’
Time period of validity: 2025-2027
Short description (max 100 words Evaluation of by-catch of seabirds and other PETS by gillnets used in the commercial fisheries in Lithuanian territorial sea.
Description of the population
Population targeted: Fishing activities with gillnets in Lithuanian Territorial Sea. **Population sampled:** 5 - 15% of total fishing efforts in small-scale fishing using vessels of <12 m length. **Stratification:** NA
Sampling design and protocols
Sampling design description:

Bird and mammals bycatch data will be collected by observers and self-reporting system covering entire year of operating fishing fleet. Fishermen will be contracted to provide bycatch data by completing data collection sheets, or to allow an observer onboard their vessels to collect data. Reference number of fishing enterprises cover 5 - 15% of total fishing efforts in small-scale fishing using vessels of <12 m length will be monitored intensively. Data collection will cover all fishing gear in use by these enterprises covering gillnets and fish trap data collection.

Information on species bycatch events would be collected: species, age, sex, bycatch gear type, mesh size, setting time, hauling time, depths and location. Animals will be labelled with unique code system to precede for further analysis.

Is the sampling design compliant with the 4S principle?:

NA

Regional coordination:

NA

Link to sampling design documentation:

All documentation concerning sampling design, protocols and etc. available in KU SharePoint 05_Priegauda

Design follows international recommendations:

NA

Link to sampling protocol documentation

All documentation concerning sampling design, protocols and etc. available in KU SharePoint 05_Priegauda

Protocol follows international recommendations:

Y – BirdLife International.

Sampling implementation

Recording of refusal rate:

NA

Monitoring of sampling progress within the sampling year:

NA

Data capture

Means of data capture: By-catch of birds will be provided to the laboratory for biological analysis.

Data capture documentation: Three phases:

1. Data entering to excel workbook.
2. Checking for errors.
3. Importing to KU SharePoint 05_BY_CATCH.

Quality checks documentation: Quality checks are integrated into 2nd and 3rd phases of data capture. Some data validation rules as dates consistency, data formats, are integrated into pre-importing excel workbook. After data are tabled in this workbook the error checking is performed by R-script. This script allows to find missed values, to correct codes, to find externalities and other. The script is always updated depending on errors discovered, For the moment this script allows to find 8 types of errors.

Data storage

National database: Data stored in KU SharePoint 05_BY_CATCH

International database: NA

Quality checks and data validation documentation: see "Quality checks documentation"

Sample storage

Storage description: NA

Sample analysis: see "Sampling design and protocols

Data processing
Evaluation of data accuracy (bias and precision): NA **Editing and imputation methods:** see “Data capture documentation”. **Quality document associated to a dataset:** NA **Validation of the final dataset:** NA

ANNEX 1.2 - QUALITY REPORT FOR SOCIOECONOMIC DATA SAMPLING SCHEME

The quality report fulfils Article 6 (3) (d) of the Regulation (EU) 2017/1004. This document is intended to specify data to be collected under chapter II, points 3, 5, 6, and 7 of the Delegated Decision annex: Socioeconomic data on fisheries, aquaculture and any complementary data collection of fishing activity and fish processing.

Use this document to describe quality aspects of the data collection process (design, sampling implementation, data capture, data storage and data processing etc.). The annex should be filled for each sampling scheme. Where applicable, use the handbook on sampling design (Deliverable 2.1 from MARE/2016/22 SECFISH study), available on the DCF website.

Provide information under each point in all sections.

Please indicate sampling scheme identifier (e.g combination of 'sector' and 'sampling scheme' or 'variables' from the annex table). Each identifier is unique and can be used only once; records with identical scheme identifiers are overwritten in the platform. Do not add any tables others than from the template.

Create a first survey specification record as a reference to the regional WP, add 'RWP ECON' in the 'sector name' field and leave the other fields empty.

Sampling scheme identifier: RWP ECON 2025-2027

Survey Specifications
'Sector name' refers to socio economic data on fisheries, aquaculture and any complementary data collection of fishing activity and processing as given in the EU MAP Delegated Decision annex. *'Sampling scheme' refers to survey technique: by census, by sampling, random or non-random, other (with explanation). If sampling, then outline sampling design.* *'Variables' refer to Tables 7, 9 and 10 of the EU MAP Delegated Decision annex.* *'Supra region' refers to Table 2 of the EU MAP Implementing Decision annex. If the sampling scheme is the same in all supra regions put 'All supra regions.*
Sector name(s): RWP ECON
Sampling scheme:
Variables:
Supra region(s):
Survey planning
Survey design and strategy
1. Data sources: 2. Sample sizes: 3. Survey methods:

4. Additional information used in the survey strategy:
Estimation design
1. Calculation method for population estimate: 2. Calculation method for derived data: **3. Nonresponse handling:**
Error checks
Data storage and documentation
1. Data storage: 2. Documentation:
Revision
Confidentiality
1. Are procedures for confidential data handling in place and documented? 2. Are protocols to enforce confidentiality between DCF partners in place and documented? **3.** Are protocols to enforce confidentiality with external users in place and documented? 4. Are there any issues with publication of data due to confidentiality reasons? Provide an explanation.

Sampling scheme identifier: 1 Fishing activity variables

Survey Specifications
'Sector name' refers to socio economic data on fisheries, aquaculture and any complementary data collection of fishing activity and processing as given in the EU MAP Delegated Decision annex. *'Sampling scheme' refers to survey technique: by census, by sampling, random or non-random, other (with explanation). If sampling, then outline sampling design.* *'Variables' refer to Tables 7, 9 and 10 of the EU MAP Delegated Decision annex.* *'Supra region' refers to Table 2 of the EU MAP Implementing Decision annex. If the sampling scheme is the same in all supra regions put 'All supra regions'.*
Sector name(s): Fishing activity variables
Sampling scheme: Census
Variables: Fishing activity variables from Table 6 of EU MAP Delegated Decision
Supra region(s): All Supra regions
Survey planning
The total population for fleet Fishing activity variables are all active and inactive vessels registered in the National Fisheries Fleet Register on 31 December of the reporting year and vessels that do not appear on the Register at that date but have fished at least one day during the reporting year. The National logbooks applied at census basis to all vessels with length less than 8 m, which had activities in fisheries. The vessels from 8 metres till 12 metres

length in overall use the EU community logbooks for report of activity variables. Other fleet segments submit the logbook's information by electronic devices. Inactive fleet variables are deriving from the National Fisheries Fleet Register (NFFR). The sales notes cover the landings value for all segments.

Survey design and strategy

1. Data sources: logbooks, national fisheries fleet register, sales notes, VMS data
2. Sample sizes: The data collection scheme for all variables is census.
3. Survey methods: To approach reliable and high quality of data Lithuania uses a "census" type of logbooks for vessel, which is not recorded data under the Regulation (EU) No 1224/2009. National logbooks are completing by companies engaged in commercial fishing in the Baltic Sea coastal area. List of vessels is approved by national legislation and covers the whole segment population. The landings and metier effort variables are based on abovementioned logbooks. The logbooks information shall be transmitted to the authority 2 times per month. When classifying a data transmission failure regarding timeliness or completeness the company is notified and report is re/submitted. The logbooks landing information are cross-checking with sales notes.
4. Additional information used in the survey strategy: Cross-checking, analyses and verifications through automated computerised algorithms and mechanisms on vessel monitoring systems, catch, effort and sales data and data related to the NFFR as well as verification of licences and fishing authorisations are developed in FDIS.

Estimation design

1. Calculation method for population estimate: Not applicable as data collection is census.
2. Calculation method for derived data: Data on landings and effort for all segments is derived from the national or Comunity vessel's logbooks, electronic logbooks which have been cross-checked with sales notes and/or VMS data. For fleet segments value is estimating based on mean prices derived from sales notes multiplying by weight from landing declarations. The prices estimation is separated by three fishing background: the Baltic Sea coastal area, the Baltic Sea area and other regions area.
3. Nonresponse handling: For fleet segment under 8 metres length in overall the mandate for data reporting in the National logbooks is established by the Ministry of Agriculture. The National legal act defines the duties of respondents in providing the logbook data. Other fleet segments are covered by EU legal acts restrictions. The mandate is clarified in the rules of fisheries data provision and the legal responsibility concerning non-response. In order to avoid and reduce non-responses of data submission a policy of proactive measures in form of periodical reminders to data small scale fisheries providers are in place. The fisheries data, collected to FDIS has an administrative data status and is used to administrate EMFF measures, therefore sector has an interest to provide data and assure it quality.

Error checks

In FDIS has been performed cross-checking, analyses and verifications through automated computerised algorithms and mechanisms on vessel monitoring systems, catch, effort and sales notes data and data related to the Community fishing fleet register as well as the verification of licences and fishing authorisations that ensure

Fleet, Effort (excluding Energy consumption), Number of fishing enterprises/ units and Production value per species variables quality.

Data storage and documentation

1. Data storage: Fisheries statistical data is stored in FDIS data base. Managing authority for FDIS is Lithuanian Ministry of Agriculture. FIDIS is administrated by ATEA which possess necessary capabilities and IT infrastructure to guarantee the safe storage and use of data.
2. Documentation: Not applicable

Revision

Data collection process is regularly monitored for implementation and efficiency. For the quality assurance ATEA has adopted internal validation system. Among other elements it includes monitoring and measurement of data collection and dissemination efficiency, completeness and timeliness. Data collection methodologies are regularly reviewed and adopted to the new requirements and recommendations. Revisions follow standard as defined in the procedure for organization of data presentation, verification.

Confidentiality

1. Are procedures for confidential data handling in place and documented? Statistical confidentiality is guaranteed by the Law on Official Statistics of the Republic of Lithuania. Personal data confidentiality is guaranteed by the General Data Protection Regulation, Law on Legal Protection of Personal Data of Republic of Lithuania
2. Are protocols to enforce confidentiality between DCF partners in place and documented? For complimentary data collection is adopted a national legal act containing confidentiality provisions. Whereas external users are not permitted to access to data sources, there is no need of protocols and documentation to enforce confidentiality with them.
3. Are protocols to enforce confidentiality with external users in place and documented? Not applicable.
4. Are there any issues with publication of data due to confidentiality reasons? Provide an explanation. To avoid confidentiality issues in reporting, fleet economic data at segment level are aggregated to the clusters.

Sampling scheme identifier: 2 ECONOMIC AND SOCIAL DATA OF FISHING FLEET

Survey Specifications

'Sector name' refers to socio economic data on fisheries, aquaculture and any complementary data collection of fishing activity and processing as given in the EU MAP Delegated Decision annex.
'Sampling scheme' refers to survey technique: by census, by sampling, random or non-random, other (with explanation). If sampling, then outline sampling design.
'Variables' refer to Tables 7, 9 and 10 of the EU MAP Delegated Decision annex.
'Supra region' refers to Table 2 of the EU MAP Implementing Decision annex. If the sampling scheme is the same in all supra regions put 'All supra regions'.

Sector name(s): Socio economic data on fisheries

Sampling scheme: Census

Variables: Fleet economic variables from Table 7 of EU MAP Delegated Decision excluding Consumption of fixed capital, Value of physical capital and Value of quotas and other fishing rights for which separate Methodological Reports are provided

Supra region(s): All Supra regions

Survey planning

The total population for fleet economic and social variables is all active and inactive vessels registered in the Fishing Fleet Register on 31 December of the reporting year and vessels that do not appear on the Register at that date but have fished at least one day during the reporting year. Census survey is applied to the enterprises which had activities in fishing effort. For inactive fleet economic variables are estimated.

Survey design and strategy

1. Data sources:

Collection of economic variables of the Lithuanian fleet will be based on following major data sources which contains census data:

a. Lithuanian Agricultural and Food Product Market Information System (LAFPMIS) administered by State enterprise Agricultural Data Center (ADC) for Economic and social variables covering variable groups from EU MAP as Income, Operating costs, Capital costs, Investments, Financial position, Employment, variable energy consumption and Social variables. Gross value of landings is collected from the enterprise accountancy as income of landings from income/cost statement together with corresponding expenditures. For the crosschecking and in case of non-response, value of landings from FDIS (sale notes) is used.

b. Fishery Data Informational System (FDIS) administered by Fisheries Service covers Variable groups as Fleet, Effort, Number of fishing enterprises/units.

LAFPMIS economic and social data of fleet is collected through officially approved census survey forms. Effort data for all fleet segments is collected through National and EU logbooks in paper or electronic form and uploaded in FDIS Fleet variable group is derived from the National Fisheries Fleet Register (NFFR) integrated in FDIS. Active and inactive vessels are included in NFFR.

Fleet economic data collection is based at enterprise level, but survey unit is a vessel. If enterprise operates two vessels or more which belongs to different fleet segments, data is reported separately for each segment. In the case when all vessels in the enterprise belongs to one segment, only one questionnaire for all vessels in the segment is provided. However, due to the low number of vessels per each segment, similar characteristic fleets are merged to the clusters to avoid any issues coming from confidentiality.

Before starting annual census survey for economic and social variables the composition of fleet segments is checked from the fleet activity information (effort data from FDIS). Logbook based data on effort for each active population vessel is extracted from FDIS and taking into account vessel length, fishing area and activity by gear, fleet segments are formed.

Social data is collected at the enterprise level and aggregated to the fishing region as recommended by PGECON 2017. “Small scale fleet”, “Large scale fleet” and “Long distance fleet” aggregation groups of social variables are used from PGECON 2017 3-9 recommendations.

2. Sample sizes: Sample size is total population as data collection scheme is census. Fishing activity data for the determination of active fleet population is derived from FDIS data base. Inactive fleet is derived from the NFFR.
3. Survey methods: Survey method is census. Data are collected by statistical forms (code DR-1) approved by the order of the Minister of Agriculture No 3D-707 on 4-th August of 2010 (link). Legal act approves "The rules of fisheries data provision" including statistical forms as well as "Methodology for the survey of production, sales, employment and economic indicators of aquaculture, marine fisheries and fish processing industry". For the fisheries data submission, Interactive Data Input System is developed to facilitate data collection process and data storage. Enterprises have an option to provide data directly to the data base or alternatively can send completed survey forms by email and then data is uploaded to the system by the data collector.

   FDIS and NFFR possess census data from logbooks and vessels register documents respectively.
4. Additional information used in the survey strategy: Auxiliary data is used for the FTE calculation from the number of working hours. The annual number of hours per FTE is taken from the annually approved legal act of Social and Labour Ministry on the approval of annual average monthly working days and average monthly working hours (link).

   For the crosschecking purposes and estimation of missing variables, publicly available information on the Total income, net profit, total assets and debts published from the State Enterprise Center of Registers (Income Statement report and Balance sheets) is used (link).

   For the crosschecking of data and estimation of missing employment variables publicly available data from State Social Insurance Fund is used.

Estimation design

1. Calculation method for population estimate: Not applicable as data collection is census.
2. Calculation method for derived data: Imputed value of unpaid labour is calculated as the number of unpaid family members involved in production, or number of their working hours (if provided) multiplied by average annual wage calculated for "paid labour" at particular segment level. All data is available from LAFPMIS.

   Working hours of employees in fisheries is collected at gender level. Therefore, FTE by gender as well as National FTE is calculated from annual working hours divided from the annual number of hours for 1 full time employee indicated in national law (data of Social and Labour Ministry).
3. Nonresponse handling: The mandate for statistical data reporting is established in the Law on Official Statistics in Article 5 Part 1 and Article 17 (link). The Law on Official Statistics (Article 17) defines the duties of respondents in providing statistical data. The mandate is clarified in the rules of fisheries data provision and the legal responsibility concerning non-response (link). In order to avoid and reduce non-responses of data submission a policy of proactive measures in form of periodical reminders, questionnaire facilitation and supportive communication as well as feedback with statistical products to data providers are in place. Fisheries data, collected to LAFPMIS has administrative data status and is used to administrate EMFF measures, therefore sector has an interest to provide data and assure it quality.

4. In the case, when response rate is less than 100% of population, missing variables are estimated from the independent variables from FDIS effort and landings data. Independent variables for estimation of missing economic indicators were selected taking into account the results and recommendations from the Workshop on allocation of Economic Data at disaggregated level as related to the DCF (July 4-8 2011, Hamburg). Missing variables are estimated by the equation:

$$X_j = \frac{\sum_{i=1}^{n} x_i}{\sum_{i=1}^{n} y_i} * Y_j$$

where:

Xj - missing variable of the vessel;

xi - collected variable of the sample (census survey responses);

n - sample size;

Yj - independent variable of the vessel;

yi - independent variable of the sample.

Table of corresponding information of missing variables, independent variables and auxiliary information for estimation of non-response:

Missing variable of non-response	Independent variable
Personnel costs, Value of unpaid labour, Other variable costs, Other non-variable costs	Value of landings (FDIS sale notes)
Energy costs, Repair and maintenance costs, Energy consumption, Full-time equivalent (FTE)	Days at sea (FDIS logbooks)
Unpaid labour	Paid labour (Census survey data + State Social Insurance Fund data for non-response)
Social indicators	Paid labour (Census survey data + State Social Insurance Fund data for non-response), based on the proportional distribution of social indicators of the achieved sample.

Missing variable of non-response	Auxiliary information
Operating subsidies, Subsidies on investments	National Paying Agency data
Total assets, Gross debt, Investments in tangible assets	SE Center of Registers (income statement report)
Paid labour	State Social Insurance Fund data

Missing variable of non-response	Other methods
Consumption of fixed capital, Value of physical capital	Perpetual Inventory Method (PIM)
Value of quotas and other fishing rights	Discounted Cash Flow method
Total assets	PIM as alternative method for individual companies if auxiliary information in Center of Registers is not available.
Gross debt	Average financial position ratio (debt/assets) from response of the segment is applied on the estimated total assets.

Missing variable of non-response	Comment

Other income	Is assumed as 0 in non-response if no auxiliary information is available that vessel had other income
Income from leasing out quota or other fishing rights, Lease/rental payments for quotas or other fishing rights	Is assumed as 0 in non-response if no auxiliary information (Transferable Fishing rights register) is available that vessel had this type income and cost.

Error checks

LAFPMIS Interactive Data Input System contains:

- logical verification and data validation at different data processing stages;
- automatic data aggregation during data input process;
- for external users, especially data providers, system ensure easy accessibility of methodologies;
- system is flexible in terms of development according requirements from end users and external users;
- update and storage of exhaustive administrative data for comparison and crosschecking.

In addition, primary data, intermediate results and statistical outputs are regularly assessed by the expert knowledge of personnel. Statistical data form survey is checked for inconsistencies (logical checks), completeness, and timeliness. Detected errors are registered in non-compliance register which is used for annual risk assessment analysis, prepared according to the approved procedure (link). Based on the risk assessment analysis ADC Data Audit Unit on annual basis visit selected fishing companies and perform primary data quality and accuracy audition by checking submitted data with companies accounting documents for errors, completeness and other quality assurance aspects.

In FDIS has been performed cross-checking, analyses and verifications through automated computerised algorithms and mechanisms on vessel monitoring systems, catch, effort and sales notes data and data related to the Community fishing fleet register as well as the verification of licences and fishing authorisations that ensure Fleet, Effort (excluding Energy consumption, LAFPMIS), Number of fishing enterprises/ units and Production value per species variables quality.

Data storage and documentation

1. Data storage: Fisheries statistical data is stored in LAFPMIS data base. Managing authority for LAFPMIS is Lithuanian Ministry of Agriculture and LAFPMIS regulation is approved by legal acts (link) which defines LAFPMIS purpose, manager, data processors, data providers, recipients of information, their functions and responsibilities, data processing, data collection, provision, storage and use procedures, sources of financing and data security requirements. LAFPMIS is administrated by ADC which possess necessary capabilities and IT infrastructure to guarantee the safe storage and use of data.
2. Documentation: Methodological documents are published in the website of Lithuanian National Fisheries Data Collection Program (link).

Revision

Data collection process is regularly monitored for implementation and efficiency. For quality assurance ADC has adopted internal legal acts on the list of quality monitoring and measurement indicators of the processes and services of ADC. Among other elements it includes monitoring and measurement of data

collection and dissemination efficiency, completeness and timeliness (*internal document*). Data collection methodologies are regularly reviewed and adopted to the new requirements and recommendations. Revisions follow standard as defined in the procedure for organization of data presentation, verification, processing and aggregation in LAFPMIS and reporting to the European Commission and other European Union institutions and national authorities and publication of the outcome (*internal document*).

Fleet segmentation is reviewed annually as fishing vessels depending on the effort and allocated fish quotas can shift between different feet segments. Fleet segments are defined each year before economic data collection.

Confidentiality

1. Are procedures for confidential data handling in place and documented?

   Statistical confidentiality is guaranteed by the Law on Official Statistics of the Republic of Lithuania (link). Personal data confidentiality is guaranteed by the General Data Protection Regulation (link), Law on Legal Protection of Personal Data of Republic of Lithuania (link) and ADC internal legislation on data protection (link).
2. Are protocols to enforce confidentiality between DCF partners in place and documented?

   All descriptive procedures concerning statistical confidentiality and data protection are laid down in the internal ADC documents: ADC data protection policy (link), ADC information security policy (link).
3. Are protocols to enforce confidentiality with external users in place and documented?

   All descriptive procedures concerning statistical confidentiality and data protection for external users are laid down in the internal ADC documents: ADC data protection policy (link), ADC information security policy (link).
4. Are there any issues with publication of data due to confidentiality reasons? Provide an explanation.

   No issues for confidentiality.

Sampling scheme identifier: 3 ECONOMIC DATA FOR CAPITAL VALUE, CONSUMPTION OF FIXED CAPITAL OF FISHING FLEET AND VALUE OF QUOTAS AND OTHER FISHING RIGHTS OF FISHING FLEET

Survey Specifications

'Sector name' refers to socio economic data on fisheries, aquaculture and any complementary data collection of fishing activity and processing as given in the EU MAP Delegated Decision annex.
'Sampling scheme' refers to survey technique: by census, by sampling, random or non-random, other (with explanation). If sampling, then outline sampling design.
'Variables' refer to Tables 7, 9 and 10 of the EU MAP Delegated Decision annex.
'Supra region' refers to Table 2 of the EU MAP Implementing Decision annex. If the sampling scheme is the same in all supra regions put 'All supra regions'.

Sector name(s): Socio economic data on fisheries

Sampling scheme: Indirect survey

Variables: Fleet economic variables of Consumption of fixed capital, Value of physical capital and Value of quotas and other fishing rights from Table 7 of EU MAP Delegated Decision

Supra region(s): All Supra regions

Survey planning

The total population is all active and inactive vessels registered in the Fishing Fleet Register on 31 December of the reporting year and vessels that do not appear on the Register at that date but have fished at least one day during the reporting year.

Survey design and strategy

1. Data sources:

For Consumption of fixed capital and Value of physical capital

Variables Consumption of fixed capital and Value of physical capital are estimated in accordance with Perpetual Inventory Method (PIM) through a template model initially developed by EC study No. FISH/2005/03. Data for estimation is derived from following data sources:

- Lithuanian Agricultural and Food Product Market Information System (LAFPMIS) administered by State enterprise Agricultural Data Center (ADC) for data on vessel purchasing prices, historic depreciated prices and vessel second hand prices.
- Fishery Data Informational System (FDIS) administered by Fisheries Service for fleet activity and capacity indicators.
- Statistics Lithuania for Consumer Price Index

LAFPMIS economic and social data of fleet is collected through officially approved census survey forms. FDIS effort data is collected through log books and monthly reports, Fleet variable group from Fleet Register.

Fleet economic data collection is based at enterprise level, but survey unit is a vessel. If enterprise operates two vessels or more which belongs to different fleet segments, data is reported separately for each segment. In the case when all vessels in the enterprise belongs to one segment, only one questionnaire for all vessels in the segment is provided.

Before starting annual census survey for economic and social variables the composition of fleet segments is checked from the fleet activity information (effort data from FDIS). Logbook based data on effort for each active population vessel is extracted from FDIS and taking into account vessel length, fishing area and activity by gear, fleet segments are formed.

Consumption of fixed capital and Value of physical capital are estimated at fleet segment level.

For Value of quota and other fishing rights

Value of quota and other fishing rights is estimated in accordance with Discounted Cash Flow Method (DCFM) as was initially proposed by the SECFISH WP4 (Strengthening regional cooperation in the area of fisheries data collection – Socio-economic data collection for fisheries, aquaculture and the processing industry at EU level) through PGECON 2020 ToR 5.2 and Recommendation 6. Data for estimation is derived from following data sources:

- Lithuanian Agricultural and Food Product Market Information System (LAFPMIS) administered by State enterprise Agricultural Data Center (ADC) for the fleet economic data to calculate profitability indicators as input to DCFM.
- Fishery Data Informational System (FDIS) administered by Fisheries Service for fleet activity indicators to disaggregate economic indicators at level of fisheries.
- STECF fleet economic data for the application of regional approach to the calculation of gross profit margin in other MS fleets.

MareFrame (Ecosystem-based Fisheries Management Solutions) open data sets on the forecast of landings in different marine regions at species level to estimate value of landings in the future periods (link)

2. Sample sizes: Sample size for estimation is total population. Fishing activity data for the determination of active fleet population is derived from FDIS data base. Inactive fleet is derived from the Fleet Register.
3. Survey methods: Not applicable as variables are estimated.
4. Additional information used in the survey strategy:

For Consumption of fixed capital and Value of physical capital

In order to test applicability of PIM method for Lithuanian fishing fleet, the Case Study on the "Capital value estimation for the fishing fleet and comparative analysis between Perpetual Inventory Method and other approaches determining the capital value" was launched and based on the results methodology was prepared (**link**). Data on the depreciation rates, renewal age, vessel structure, residual values used for modelling Variables of Consumption of fixed capital and Value of physical capital is used from case study.

For Value of quota and other fishing rights

Auxiliary information from MareFrame was used for the estimation of values in future period of allocated fishing right.

Estimation design

1. Calculation method for population estimate: Estimation is applied on the total population, which used for census survey.

2. Calculation method for derived data:

For Consumption of fixed capital and Value of physical capital

Variables of Consumption of fixed capital and Value of physical capital is calculated using PIM by these steps:

- Compiling a list of all active and inactive vessels of Lithuanian fishing fleet at fleet segment level:

  According to the effort data from FDIS and Fleet register data, activity of the vessels are defined. If no commercial fishing activities were carried out with the vessel during the reporting period, the vessel is indicated as inactive. Based on the Supra region of activity, vessel length and dominant fishing gear, fleet segments are formed.

- Estimation of Net current value of the vessel. Data on vessel purchasing prices (historic depreciated prices) (2nd hand prices) are obtained from LAFPMIS, collected by DR-1 survey forms. A list of individual vessels historic purchasing prices on specific years is created. Net current value is calculated by multiplying depreciated historical value of a vessel by Consumer Price Index. Yearly heavy machinery index is used as CPI for calculating current values and is taken from State Data Agency.
- Estimation of Gross current value of the vessel. Gross current value is necessary for Price per capacity unit calculation and is estimated by adding cumulated depreciation costs for every single part of a vessel to the Net current value minus investments. Depreciation rates are chosen in accordance with Case Study.
- Calculating Prices per capacity unit (PCU):

  PCU is used for calculation of Gross current value of the vessels for which initial historic purchase value is missing as well as for inactive vessels. PCU for vessels with initial observed purchasing prices is calculated by dividing Gross current value of a vessel by capacity of the vessel in terms of GT. Prices per capacity unit for vessels without initial purchasing price or inactive vessels is calculated by dividing Gross current value for fleet segments by GT of the that segment.
- Value of physical (depreciated) capital is estimated applying the depreciation function on the Gross value of the vessel (obtained from LAFPMIS data or calculated by PCU). Depreciation and gross value are calculated for each part of vessel separately applying linear depreciation function based on the Case Study results.

For Value of quota and other fishing rights

Following PGECON 2020 Recommendation 6 for MS to explore the possibilities to apply the guidelines to calculate the value of intangible assets, Case study "Preparation of methodology for the estimation of value of quotas and other fishing rights in Lithuanian fishing fleet" (Further – Case study) was launched and based on the study outcomes the methodology was prepared.

Fishing rights to fishing opportunities in Lithuanian fishing fleet are allocated by quoted species (cod, sprat, herring, salmon) to the enterprises operating in the Baltic Sea, whereas fishing rights for coastal fisheries are distributed as maximum number of nets (total length in m) for assigned fishing territorial area. Long distance fleet have a fishing right for quotas of small pelagic species (dominant in landings) in CECAF, as well as at smaller amount quotas in NAFO n NEAFC and SPRFMO regions. For some species long distance fishing rights are allocated as number of days at sea. Fishing rights in all Supra regions are allocated for 2017–2034-year period.

Taking into account different types of quotas and fishing rights complexity, value of fishing rights is estimated for Baltic large scale fleet, small scale coastal fleet and long distance fleet separately.

Value of fishing rights is estimated by Discounted Cash Flow Method (DCFM) as recommended by the SECFISH WP4 through PGECON 2020. Based on the Case study results, DCFM was modified and adapted to the Lithuanian fleet. Value of fishing rights is estimated by the equation:

$$V_{FR} = \frac{GP_{ft=1}}{(1+k_f)^1} + \sum_{t=2}^{z} \frac{\widehat{GP}_{ft}}{(1+k_f)^t}$$

V_{FR} – Value of fishing rights;
GP_{ft} – Gross profit (without depreciation costs) from quoted fisheries (f) in particular year (t);
$\widehat{GP}_{ft}$ – forecasted gross profit from quoted fisheries (f) in future periods (t);
z – number of remaining years for allocated fishing right;
t – year of fishing right;
k_f – discount rate for quoted fisheries (f).

$$k_f = GPM * (1 - r)$$

GPM – Gross profit margin (applying regional approach)
r – profit tax rate

For the reference year V_{FR} is estimated using LAFPMIS fleet economic statistical data, whereas future period values are forecasted.

Main steps of estimation of value of fishing rights V_{FR}:

Large scale Baltic fleet

- As V_{FR} are estimated for every quoted fishery (at stock level for Baltic Sea and group of stocks for long distance fleet), gross profit is calculated for each quoted species by disaggregating economic variables of the vessel to the corresponding fisheries based on the fishing activity indicators. Disaggregation of economic variables was tested in the Case study taking into consideration the results and recommendations from the PGECON WS on allocation of Economic Data at disaggregated level (2011 Hamburg).
- Gross profit margin for discount rate is calculated from disaggregated economic variables by fisheries (at stock level) and for cases when one vessel is specialized for specific target species, data was used without disaggregation.
- For the future periods allocated with fishing rights, forecasted data was used. For the forecast of future landings by fisheries, MareFrame bioeconomic model data based on the ecosystem approach was used. Model datasets are publicly available. Forecasted value of landings multiplied by the 9-year multiannual gross profit margin by the linear forecast function was applied for calculation of future gross profit at fisheries level.
- Future discount rates were calculated taking into consideration regional aspect as Lithuanian large scale fisheries are economically related (by landings and capital investments form other MS) with Baltic sea marine region. For the Baltic Sea fleet, multiannual economic data from Latvian, Estonian, Lithuanian and Polish fleet at the corresponding segment level (STECF data) was used to calculate regional gross profit margin for the particular fisheries. Fleet segment allocation to the fisheries is provided in the Case study.
- Above-mentioned indicators are used for V_{FR} estimation for large scale Lithuanian Baltic fleet.

Small scale coastal fleet

- For the coastal fleet, fishing rights are allocated by the maximum number of fishing nets in the allocated coastal region.

- Economic indicators necessary for the estimation of V_{FR} for coastal fleet are calculated by segment level, because fishery approach is not applicable for allocation of fishing rights to coastal fleet.
- Taking into account that separate coastal territorial regions allocated as part of fishing right have different economic efficiency based on the economic and fishing effort statistical data. Case study shows the different coastal regions had a considerable variance in the days at sea, catch per unit effort, value of landings and profitability. Therefore, indicator "Value of landings by one fishing unit per seaday in the particular region ("Eur/1000tmd")" was calculated for each fleet segment. Having allocated maximum number of nets per coastal region as fishing right for the one economic unit (enterprise), using Eur/1000tmd indicator the Maximal value of landings per fishing right is calculated. Multiannual average of Gross profit margin per coastal fleet segment multiplied by the will show theoretical maximum Gross profit per fishing right. Value of future landings in coastal region was calculated based on the forecast function of the days at sea (estimated in the Case study). Forecasted value of landings used for the gross profit calculation for the whole period of allocated fishing right. Then V_{FR} of fishing rights is estimated by the DCFM equation.

Long distance fleet

- For the long distance fleet fishing rights are allocated by the fisheries (quota for the separate stocks or group of stocks) therefore the same approach as for large scale Baltic fleet is applied. The difference is only that for discount rate, regional approach is not applied as long distance fleet is operating in the wide range of different regions and represents different fisheries. Regional approach will be complicated to apply. Long distance fleet is represented only by very few companies, therefore due to the confidentiality reasons, value of fishing rights per different fisheries (CECAF small pelagic species, NAFO demersal species and etc.) is not calculated separately and overall V_{FR} for overall long-distance fleet segment is estimated.

3. Nonresponse handling: Treatment of nonresponse is not applicable as Consumption of fixed capital and Value of physical capital are estimated using PIM and Value of quota and other fishing rights are estimated using DCFM.

Error checks

LAFPMIS Interactive Data Input System contains:

- logical verification and data validation at different data processing stages;
- automatic data aggregation during data input process;
- for external users, especially data providers, system ensure easy accessibility of methodologies;
- system is flexible in terms of development according requirements from end users and external users;
- update and storage of exhaustive administrative data for comparison and crosschecking.

In addition, primary data, intermediate results and statistical outputs are regularly assessed by the expert knowledge of personnel. Statistical data form survey is checked for inconsistencies (logical checks), completeness, and timeliness. Detected errors are registered in non-compliance register which is used for annual risk assessment analysis, prepared according to the approved procedure (link). Based on the risk assessment analysis ADC Data Audit Unit on annual basis visit selected fishing companies and perform primary data quality and accuracy audition by checking submitted data with companies accounting documents for errors, completeness and other quality assurance aspects.

In FDIS has been performed cross-checking, analyses and verifications through automated computerised algorithms and mechanisms on vessel monitoring systems, catch, effort and sales notes data and data related to the Community fishing fleet register as well as the verification of licences and fishing authorisations that ensure Fleet, Effort (excluding Energy consumption, LAFPMIS), Number of fishing enterprises/ units and Production value per species variables quality.

In addition, data in LAFPMIS on purchasing vessel values is cross checked with historical values for any inconsistencies and changes, which may affect calculated values of Consumption of fixed capital and Value of physical capital.

Data storage and documentation

1. Data storage: Fisheries statistical data is stored in LAFPMIS data base. Managing authority for LAFPMIS is Lithuanian Ministry of Agriculture and LAFPMIS regulation is approved by legal acts (link) which defines LAFPMIS purpose, manager, data processors, data providers, recipients of information, their functions and responsibilities, data processing, data collection, provision, storage and use procedures, sources of financing and data security requirements. LAFPMIS is administrated by ADC which possess necessary capabilities and IT infrastructure to guarantee the safe storage and use of data.

2. Documentation: Methodological documents are published in the website of Lithuanian National Fisheries Data Collection Program (link) specifically Methodology for Consumption of fixed capital and Value of physical capital and Methodology of Value of quota and other fishing rights

Revision

Data collection process is regularly monitored for implementation and efficiency. For quality assurance ADC has adopted internal legal acts on the list of quality monitoring and measurement indicators of the processes and services of ADC. Among other elements it includes monitoring and measurement of data collection and dissemination efficiency, completeness and timeliness (*internal document*). Data collection methodologies are regularly reviewed and adopted to the new requirements and recommendations. Revisions follow standard as defined in the procedure for organization of data presentation, verification, processing and aggregation in LAFPMIS and reporting to the European Commission and other European Union institutions and national authorities and publication of the outcome (*internal document*).

Fleet segmentation is reviewed annually as fishing vessels depending on the effort and allocated fish quotas can shift between different feet segments. Fleet segments are defined each year before economic data collection.

Confidentiality

1. Are procedures for confidential data handling in place and documented?
   Statistical confidentiality is guaranteed by the Law on Official Statistics of the Republic of Lithuania (link). Personal data confidentiality is guaranteed by the General Data Protection Regulation (link), Law on Legal Protection of Personal Data of Republic of Lithuania (link) and ADC internal legislation on data protection (link).
2. Are protocols to enforce confidentiality between DCF partners in place and documented?
   All descriptive procedures concerning statistical confidentiality and data protection are laid down in the internal ADC documents: ADC data protection policy (link), ADC information security policy (link).
3. Are protocols to enforce confidentiality with external users in place and documented?
   All descriptive procedures concerning statistical confidentiality and data protection for external users are laid down in the internal ADC documents: ADC data protection policy (link), ADC information security policy (link).
4. Are there any issues with publication of data due to confidentiality reasons? Provide an explanation.
   No issues for confidentiality.

Sampling scheme identifier: 4 ECONOMIC AND SOCIAL DATA OF FISH PROCESSING INDUSTRY

Survey Specifications

'Sector name' refers to socio economic data on fisheries, aquaculture and any complementary data collection of fishing activity and processing as given in the EU MAP Delegated Decision annex.
'Sampling scheme' refers to survey technique: by census, by sampling, random or non-random, other (with explanation). If sampling, then outline sampling design.
'Variables' refer to Tables 7, 9 and 10 of the EU MAP Delegated Decision annex.
'Supra region' refers to Table 2 of the EU MAP Implementing Decision annex. If the sampling scheme is the same in all supra regions put 'All supra regions'.

Sector name(s): Complementary data collection of processing

Sampling scheme: Census

Variables: Economic and Social variables (excluding variable group Raw material) of fish processing industry, listed in the Section 7 (Text Box 7.1: Economic and social variables for fish processing data collection) of RWP ECON 2025-2027

Supra region(s): NA

Survey planning

The population for economic and social variables will refer to enterprises whose main activity is defined according to the Eurostat definition under NACE Code 10.20: "Processing and preserving of fish,

crustaceans and molluscs". Number of enterprises and Turnover will be collected also from those enterprises that carry out fish processing but not as a main activity. The list of all fish processing companies will be obtained from Lithuanian State Food and Veterinary Service on a yearly basis.

Survey design and strategy

1. Data sources: Collection of economic variables of the Lithuanian fleet will be based on following major data sources which contains census data:
   - Lithuanian Agricultural and Food Product Market Information System (LAFPMIS) administered by State enterprise Agricultural data Center (ADC), annual census survey (ŽF-1) for economic data, triannual for social variables and annual census survey (ŽP-1) for employment variables.
   - Number of enterprises is obtained from Lithuanian State Food and Veterinary Service (SFVS) register for the entities with having veterinary license for food (fish and crustaceans) product processing.
2. Sample sizes: Sample size is total population as data collection scheme is census.
3. Survey methods: Economic and social data is collected from fish processing industry by statistical forms (code ŽF-1 and ŽP-1) approved by the order of the Minister of Agriculture No 3D-707 on 4-th August of 2010 (link). Legal act approves "The rules of fisheries data provision" including statistical forms as well as "Methodology for the survey of production, sales, employment and economic indicators of aquaculture, marine fisheries and fish processing industry". Survey is included in the official statistics work programs (OSWP) which is regulated by State Data Agency and is mandatory for all type of economical entities. As data collection is census, data has a higher coverage and more adjusted to DCF needs compared to the State Data Agency. Census survey covers all the fish processing companies and is used to meet the need for national administrative purposes. Therefore, data from statistical forms ŽF-1 and ŽP-1 will be the main source for economics and part of social data. Social variables are collected every three years started from 2017 and will be continued by specialized triannual census survey.
4. Additional information used in the survey strategy: Auxiliary data is used for the FTE calculation from the number of working hours. The annual number of hours per FTE is taken from the annually approved legal act of Social and Labour Ministry on the approval of annual average monthly working days and average monthly working hours (link).

   For the crosschecking purposes and for estimation of missing variables, publicly available data (Income Statement report and Balance sheet) from State Enterprise Center of Registers (CoR) is used (link).

   For the crosschecking of data and estimation of missing variables, data on the employment from State Social Insurance Fund (SSIF) is used.

Estimation design

1. Calculation method for population estimate: Not applicable as data collection is census.
2. Calculation method for derived data: Imputed value of unpaid labour is calculated as the number of unpaid family members involved in production, or number of their working hours (if provided) multiplied by average annual wage calculated for "paid labour". All data is available from LAFPMIS.

Working hours of employees is collected at gender level. Therefore, FTE by gender as well as National FTE is calculated from annual working hours divided from the annual number of hours for 1 full time employee indicated in national law (data of Social and Labour Ministry).

3. Nonresponse handling: The mandate for statistical data reporting is established in the Law on Official Statistics in Article 5 Part 1 and Article 17 (link). The Law on Official Statistics (Article 17) defines the duties of respondents in providing statistical data. The mandate is clarified in the rules of fisheries data provision and the legal responsibility concerning non-response (link). In order to avoid and reduce non-responses of data submission a policy of proactive measures in form of periodical reminders, questionnaire facilitation and supportive communication as well as feedback with statistical products to data providers are in place.

In the case, when response rate is less than 100% of population, missing variables are estimated from the independent variables from CoR (Income statement report and Balance sheets) and SSIF. Missing variables are estimated by the equation:

$$X_j = \frac{\sum_{i=1}^{n} x_i}{\sum_{i=1}^{n} y_i} * Y_j$$

where:
X_j – missing variable;
x_i– collected variable of the sample (census survey responses);
n – sample size;
Y_j – independent variable (from CoR or SSIF);
y_i– independent variable of the sample.

Error checks

LAFPMIS Interactive Data Input System contains:

- logical verification and data validation at different data processing stages;
- automatic data aggregation during data input process;
- for external users, especially data providers, system ensure easy accessibility of methodologies;
- system is flexible in terms of development according to requirements from end users and external users;
- update and storage of exhaustive administrative data for comparison and crosschecking.

In addition, primary data, intermediate results and statistical outputs are regularly assessed by the expert knowledge of personnel. Statistical data form survey is checked for inconsistencies (logical checks), completeness, and timeliness. Detected errors are registered in non-compliance register which is used for annual risk assessment analysis, prepared according to the approved procedure (link). Based on the risk assessment analysis LAFPMIS Data Audit Unit on annual basis visit selected fish processing companies and perform primary data quality and accuracy audition by checking submitted data with companies accounting documents for errors, completeness and other quality assurance aspects.

Data storage and documentation

1. Data storage: Fish processing industry data is stored in LAFPMIS data base. Managing authority for

LAFPMIS is Lithuanian Ministry of Agriculture and LAFPMIS regulation is approved by legal acts (link) which defines LAFPMIS purpose, manager, data processors, data providers, recipients of information, their functions and responsibilities, data processing, data collection, provision, storage and use procedures, sources of financing and data security requirements. LAFPMIS is administrated by ADC which possess necessary capabilities and IT infrastructure to guarantee the safe storage and use of data.

2. Documentation: Methodological documents are published on the website of Lithuanian National Fisheries Data Collection Program (link).

Revision

Data collection process is regularly monitored for implementation and efficiency. For quality assurance ADC has adopted internal legal acts on the list of quality monitoring and measurement indicators of the processes and services of ADC. Among other elements it includes monitoring and measurement of data collection and dissemination efficiency, completeness and timeliness (internal document). Data collection methodologies are regularly reviewed and adopted to the new requirements and recommendations. Revisions follow standard as defined in the procedure for organization of data presentation, verification, processing and aggregation in LAFPMIS and reporting to the European Commission and other European Union institutions and national authorities and publication of the outcome (internal document).

Confidentiality

1. Are procedures for confidential data handling in place and documented?
   Statistical confidentiality is guaranteed by the Law on Official Statistics of the Republic of Lithuania (link). Personal data confidentiality is guaranteed by the General Data Protection Regulation (link), Law on Legal Protection of Personal Data of Republic of Lithuania (link) and ADC internal legislation on data protection (link).
2. Are protocols to enforce confidentiality between DCF partners in place and documented?
   All descriptive procedures concerning statistical confidentiality and data protection are laid down in the internal ADC documents: ADC data protection policy (link), ADC information security policy (link).
3. Are protocols to enforce confidentiality with external users in place and documented?
   All descriptive procedures concerning statistical confidentiality and data protection for external users are laid down in the internal ADC documents: ADC data protection policy (link), ADC information security policy (link).
4. Are there any issues with publication of data due to confidentiality reasons? Provide an explanation.
   No issues for confidentiality.