Institute of Food Safety, Animal Health and Environment BIOR, Latvia

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

Commission Implementing Decision (EU) 2019/909 of 18 February 2019

establishing the list of mandatory research surveys and thresholds for the purposes of the multiannual Union programme for the collection and management of data in the fisheries and aquaculture sectors

Commission Delegated Decision (EU) 2019/910 of 13 march 2019

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

# Latvian Annual Report for data collection in the fisheries and aquaculture sectors

2020

Version [2] – [2021]

Riga, 21.06.2021

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SECTION 1: BIOLOGICAL DATA

## Text Box 1C: Sampling intensity for biological variables

General comment: This box fulfils paragraph 2 point (a)(i)(ii)(iii) of Chapter III, Chapter IV of the multiannual Union programme and Article 2, Article 4 paragraph 1 and Article 8 of the Decision (EU) 2016/1701. This box is applicable to the Annual Report.

Member State should provide by Region/RFMO/RFO/IO:

**Baltic Sea**

1. Evidence of data quality assurance

Evidence of data quality assurance is provided in Table 5A.

2. Deviations from the Work Plan

Biological information on length, age, weight, sex ratio and sexual maturity were collected for 10 species: *Anguilla anguilla*, *Clupea harengus*, *Gadus morhua*, *Perca fluviatilis*, *Platichtys flesus*, *Psetta maxima*, *Salmo salar*, *Salmo trutta*, *Sander lucioperca* and *Sprattus sprattus*.

The achieved levels of length, age, weight, sex ratio and maturity sampling are presented in standard table 1C. For most of fish species, the planned sampling levels have been reached. The sampling has been performed in three ways: onboard sampling, harbor sampling and self-sampling.

Latvia has planned excess sampling, e.g. herring sampling in Gulf of Riga in trap-net fishery that is used as tuning fleet in the assessment. The same reason for sprat in open sea pelagic fishery, as well as cod and flounder in open sea demersal fishery. Excess sampling has been realized on the national expense of Latvia. Data from open sea demersal fishery (target species cod or flounder) are collected by observer during the trips and self-sampling. Data are collected from each haul. Length measurements are made for all species for all catch categories (landings, discards and BMS), for other species sampling is made with smaller intensity. Trips in this fishery usually are 4-5 working days in the sea.

In many cases sampling has been done for species which have local importance but have relatively small catches therefore the required sampling level would be deficient, and the excess sampling has taken place due to continuation of the previous sampling practices because the data series are used for stock assessment purposes. Excess sampling has been realized on the national expense of Latvia.

For cod the total number of length, weight, age, sex ratio and maturity sampling were lower than planned due to direct cod fishery ban. Cod were collected as by-catch from flounder direct fishery. Due to traveling restrictions related to COVID-19, only 3 trips with observer onboard were performed.

For pike-perch, the total number of length, weight, age, sex ratio and maturity sampling were lower than planned, (for example 29% for length data). The planned sampling was not reached due to low catches although sampling activity was higher than planned (the total catch for pike-perch in 2020 was 4.08t). Besides, for salmon, sea trout, pike-perch sex ratio and maturity sampling are problematical because fishermen prefer to sell these fishes as whole. Maturity stage can be determined by season.

For turbot data were collected from Baltic sea demersal fishery as bycatch and from special survey with large mesh gillnets (GNS_DEF_>=157_0_0). The period for commercial direct fishery in coastal area is very short (usually end of May), not always due to the fishing conditions and weather is possibly to collect turbot data from the commercial fishery. Planed turbot data amount in 2020 were collected as in previous years from the specialized scientific survey where the same gillnets like in commercial fishery were used. For turbot the total number of maturity sampling were lower than planned (86%). Additional maturity data were collected during special survey.

Herring in SD 25-29, 32 is mostly taken as a bycatch in sprat fishery. Herring biological samples are usually collected by onboard observers. Due to the COVID-19 pandemic, onboard observations in 2020 were partly stopped, thus affecting the herring sampling. The amount of herring was also smaller in the pelagic fish random samples collected by fishermen (probably due to decreased herring stock size).

3. Actions to avoid deviations.

For 2021, the sampling scheme will be adopted to take into account fishing activity and to ensure that the planned number of biological variables is achieved. Number of cod samples from commercial fishery most likely won't be reached due to direct cod fishery ban in Baltic in 2021.

**Other regions (CECAF area Central East Atlantic)**

1. Evidence of data quality assurance.

Evidence of data quality assurance is provided in Table 5A.

2. Deviation from the Work plan.

Two Latvian vessels were fishing in this area in 2020). All vessels were fishing with pelagic trawl and targeting assemblage of small pelagic fishes (*Trachurus sp.*, *Scomber japonicus*, *Scomber scombrus* and *Sardinella maderensis*). The discard level is low. Starting from 2012 the sampling of pelagic fisheries is performed based on multi-lateral agreement between Germany, Latvia, Lithuania, the Netherlands, and Poland. The sampling results of 2020 are presented in the Annual report of the Poland.

3. Actions to avoid deviations.

No action necessary

(max. 1000 words per Region/RFMO/RFO/IO)

SECTION 1: BIOLOGICAL DATA

## Text Box 1D - Recreational fisheries

General comment: This box fulfills paragraph 2 point (a) (iv) of Chapter III of the multiannual Union programme and Article 2, Article 3 and Article 4 paragraph 1 of the Decision (EU) 2016/1701. This box is applicable to the Annual Report. This box is intended to provide information on the design, implementation and analysis of all components of sampling schemes/ surveys that are listed in Table 1D.

1. Description of the target population

The target population of Recreational Fisheries is self-consumption fishermen, anglers and charter boats with anglers who are targeting cod, salmon, sea trout and eel.

2. Type of survey

Information from self-consumption fishery was collected from logbooks. Data are available from every individual fishing haul by species.

Information from angling are collected in pilot surveys. Different pilot studies were established for individual fish species. Data from salmon, sea trout and cod angling in the Baltic Sea are collected from charter boat who is providing angling trips in the sea. The company was choosen taking in to account it previous expierence in scientific data collection as well as expierence in the bussiness.

3. Data Quality

No.

Due to limited size of activity random sampling was not applied, therefore non-responses and refusals are not applicable.

Data collection methodology was published in BIOR homepage and link is provided in Table 5A.

4. Data Analysis and processing

Pilot study results were anlysed and submited to Europen Comission in beginning of 2021 in the report “Relative share of catches of recreational fisheries compared to commercial fisheries Pilot study results”

(max. 900 words per survey)

SECTION 1: BIOLOGICAL DATA

## Pilot Study 1: Relative share of catches of recreational fisheries compared to commercial fisheries

General comment: This box fulfils paragraph 4 of Chapter V of the multiannual Union programme and Article 2 and Article 4 paragraph (3) point (a) of the Decision (EU) 2016/1701.

General comment: This box is applicable to the Annual Report. This box is intended to provide information on the results obtained from the implementation of the pilot study.

1. Aim of pilot study

Aim of pilot study is to estimate the relative share of recreational fisheries in total catches. The main focus will be on 4 species – salmon, sea trout, eel and cod. However, pilot study will provide important information also for estimation of the total catches of several other species like flounder, pike-perch, pike where interest of the recreational fishermen is the highest. It should be highlighted that in Latvia the recreational fishery could be explicitly divided into two parts. One part are the fishermen which are using commercial gears the number of which is limited. According to Fisheries rules in Latvia these fishermen are obliged to fill logbooks both fishing in the coastal zone and inland waters. Therefore there is exhaustive information on their catches. The samples collected from commercial fishermen could be applied to these catches because the fishing gears are the same. Therefore the pilot study will be devoted to the second part of recreational fishermen who catch the fishes with different angling tools for which the last inquiry was performed in 2007. For later period we have only information that is presented by organisers of the licenced angling in the inner waters that includes also angling on salmon and sea trout.

2. Duration of pilot study

It is planned to continue pilot study what was started in 2018. According to first results of the pilot study, recreational fishery (angling) of cod in Latvian waters is on low level. Therefore in next years pilot study will be targeted to salmon trolling, where possible by-catch will be estimated. Results of the pilot study will be presented to ICES WGRFS.

The first questionnaire was organised on 2017 and based on those results additional information will be collected in questionnaire in 2020. It will be published in social networks and BIOR homepage.

Additional information from angling from seashore will be collected from field trips in fishing season and collecting information from angling competitions.

3. Methodology and expected outcomes of pilot study

The appropriate methodology will be selected from the reports of Working Group on Recreational Fisheries Surveys (WGRFS). It will include several kinds of inquiries and also visiting of the angling sites. The Pilot study will allow to estimate the volume of catches by anglers for the main target species paying significant attention to salmon, sea trout, eel, cod as well as flounder.Together with the available data on recreational fishery catches with commercial gears it will be possible to judge whether these catches are important that a regular surveys should be performed.

(max 900 words)

4. Brief description of the results obtained (including deviations from planned and justifications as to why if this was not the case).

The pilot study concluded that recreation catches of salmon and sea trout are a significant part of the total catch. The proportion of eels is not significant yet, however it could increase next year due to the successful realization of the National eel restocking plan. The Pilot study concluded that the proportion of cod recreation fishery is low.

The proportion of salmon in recreational fishery in Latvia varied between 20 to 43 % of the total catch. The total amount of salmon from recreational catches increased from 1.9 t in 2017 to 5.9 t in 2020. A gradual increase of catches was observed in two salmon recreational fishery segments – river angling and salmon trolling, while catches in the self-consumption fishery in the coastal zone of the Baltic Sea fluctuated without

any trend. In general, the recreational fishery of salmon in Latvia had the second-highest proportion from the total catch by species.

The proportion of sea trout in recreational fishery in Latvia varied between 38 to 52 % of the total catch. The total amount of salmon from recreational catches slightly decreased in the last years. The major part of sea trout caught in recreation fishery was from the self-consumption fishery in the coastal zone of the Baltic Sea. In general, the recreational fishery of salmon in Latvia has the highest proportion of the total catch by species.

The proportion of eel in recreational fishery in Latvia varied between 2 to 6 % of the total catch. The total amount of eel from recreational catches slightly increased in the last three years. The major part of eel caught in recreation fishery was from licensed angling and underwater hunting in lakes and water reservoirs.

The proportion of cod landings in the recreational fishery in Latvia was well below 1% compared to the commercial fisheries. Angling results of cod showed relatively low success. On average, each fisherman got only 1 cod per fishing trip with an average weight below 1 kg. The total estimated catch in 2018 in the cod angling Pilot study was only 34.3 kg, where 12.3 kg were discards and 22 kg were landings.5. Achievement of the original expected outcomes of pilot study and justification if this was not the case.

All planed outcomes were achieved and estimates and recommendatios for all four species (salmon, sea trout, eel and cod) were produced.

6. Incorporation of results from pilot study into regular sampling by the Member State.

It was recommended to include salmon, sea trout, and eel recreational fishery into regular sampling. The recreational fishery of salmon and sea trout is a significant part of the total catch and is realized in marine and freshwater environments. Data should be collected from angling and self-consumption fishery. Due to the successful National eel restocking plan, the proportion of eel in total catch could increase in next years, therefore there is a need to include eel in regular sampling.

It was recommended not to include data collection from recreational fishery of cod in regular sampling. Due to the geographical distribution of cod, there is no (or very low) activity of cod angling in Latvian waters. All data from the self-sustainable fishery will be collected, however, the total amount is low (less than 1 ton) (max 900 words)

## Text Box 1E: Anadromous and catadromous species data collection in fresh water

General comment: This box fulfills paragraph 2 points (b) and (c) of Chapter III of the multiannual Union programme and Article 2 of the Decision (EU) 2016/1701.

General comment: This box is applicable to the Annual Report.

1. Method selected for collecting data.

The wild salmon population in the river Salaca has been monitored by smolt trapping since 1964 and by parr electrofishing since 1993. The Salaca is regarded as salmon index river in the Eastern Baltic. Smolt trap in the river Salaca is usually operated from the end of April till 3rd decade of May at least 3 weeks annually, however the sampling period could differ depending from hydro-meteorological conditions. All caught smolts are measured, 200 – 500 tagged by streamer tags and released upstream from the trap for total smolt run (smoltproduction) calculation.

Salmon parr electrofishing carried out in permanent monitoring sites anually. Part of the sites fished three times to calculate the parr densities at 100 m2 of habitat. All caught salmon parr are measured. Electrofishing is carried out regarding standard LVS EN 14011:2003 established on the basis of CEN standard.

Salmon and sea trout samples in fresh water are collected from commercial fisheries by signing agreement with fishermen, who are instructed how to collect samples correctly. Number of samples is provided in table 1C.

Part of eel samples in freshwater are collected by commercial fishermen using trap net (side arm 50 m, mesh size 30 mm in the cod end) near by the river Daugava mouth, by fyke nets 0,5 km upstream form the river Daugava mouth and by trap net closing the lake Lilaste outlet.

The set of 4 small mesh size (8 – 10 mm from knot to knot) fyke-nets used in the lower part of the largest Latvian river Daugava to catch silver eel and undersize young yellow eel. Trap net with side arms closing the lake Lilaste outlet (mesh sizes 20- 14 mm) used to catch yellow eel migrating from the lake to the Gulf of Riga. Number of days in operation and number of eel caught registered in the logbook. All caught eel from river Daugava and lake Lilaste outlet are hold alive in net – cage until sampling procedure. All caught eel from this gear analyzed at harbor, part of them tagged with Carlin tags and released to estimate mortality in different types of fisheries.

Eel samples also were collected independent methods by electrofishing in the Latvias EMU lakes and rivers by electrofishing.

Electrofishing in the Latvias EMU lakes and rivers carried out annually in at least 60 sites (accessible for eel), fished area, time in electrofishing and number of eel caught registered. All caught eel analyzed.

Eel samples in fresh water (Nmin=50) collected from commercial fisheries and also by commercial fisheries independent methods (fykeneting and electrofishing). Total length, weight, sex, eye diameter, pectoral fin length registered and otoliths collected. Life stage of eel recognized by Silvering Index calculated from length, weight, pectoral fin length and eye diameter according to Durif et al., 2009.

According to WGBAST recommendation collect data of ascending salmon in all salmon index rivers. Therefore starting from 2020 counting using VAKI counter will be started in Salaca River to increase amounts of basic biological data. As a results full- history data (smolt and spawner counts, additional electrofishing sites) will be collected in Salaca River.

*(max 250 words per Area)*

2. Were the planned number achieved? Yes/ No

**Yes.** Generally, planed sampling numbers are achieved. All caught salmon and sea trout smolts were measured, 400 smolts (266 salmon and 134 sea trout) were tagged and released upstream in Salaca river for smolt trap efficiency estimation.

All caught eel were measured, life stages recognized by silvering index. 158 eel migrating from Daugava and Lilaste rivers to the sea were tagged and released back alive. Otoliths were collected from all eel caught in electrofishing survey.

(max 500 words per Area)

SECTION 1: BIOLOGICAL DATA

## Text box 1F: Incidental by-catch of birds, mammals, reptiles and fish

General Comment: This box fulfils paragraph 3 point (a) of Chapter III of the multiannual Union programme and Article 2 of the Decision (EU) 2016/1701. This box is applicable to the Annual Report. This box is applicable only for those sections where Member States have reported that they have been carrying out regular sampling. Results and deviations for Pilot studies should be reported under Pilot Study 2.

1. Results

Incidental by-catch of fishes

Open sea demersal fish fishery: from all observed trips 8 fish species were recognized. Two species are included in the Table 1D R1251/2016.

Cod - 4323 fishes, 38 samples;
Sea scorpion - 94 fishes, 13 samples.

Gulf of Riga pelagic fish fishery: from all observed trips 1 fish species was recognized. One subspecies is included in the Table 1D R1251/2016.

Autumn-spawning herring - 6 fishes, 6 samples.

Specialized salmon fishery with longlines: from all observed trips 2 fish species were recognized. Both species included in the Table 1D R1251/2016.

Salmon - 210 fishes, 8 samples,
Trout - 2 fishes, 2 samples.

Coastal fishery: from all observed trips, 20 fish species were recognized. Eight species are included in the Table 1D R1251/2016.

Salmon - 13 fish, 2 samples,
Lumpfish - 1 fish, 1 sample,
Whitefish - 25 fishes, 2 samples,
Smelt - 19 fishes,5 samples,
Trout - 15 fishes, 4 samples,
Vimba bream - 26 fishes, 3 samples,
Four-horned sculpin - 4 fishes, 2 samples,
Striped sea snail- 1 fish, 1 sample.

Incidental by-catch of mammals

From the observed trips, incidental by-catch of mammals was not observed.

Incidental by-catch of birds

From the observed trips in coastal fishery (stratum code SB-2), incidental by-catch of birds was not observed.

2. Deviations from Work Plan

No deviations.

3. Data quality

During the on-board sampling comprehensive sampling of all species is performed. It should be highlighted that in the Baltic Sea most of the metier perform rather clean fishery and the by-catch of non-target species is low or could be absent at all. The on-board sampling was used for demersal and pelagic fishery, coastal fishery. Data are collected on haul level only. Observers are on the ship deck during the trawl hauling, after each trawl codend is checked. Information about rare specimens is collected from whole catch even in the large catches. In sampling protocol, it is possible to indicate the use of escape window type in demersal trawl fishery.

In passive gear fishery number of incidental bycatches is insignificant. Observer protocol allows record such information.

Collected information about incidental by-catches is stored in national database and Fishframe.

(max 900 words)

## Pilot Study 2: Level of fishing and impact of fisheries on biological resources and marine ecosystem

General comment: This Box fulfills paragraph 3 point (c) of Chapter III of the multiannual Union programme and Article 2 and Article 4 paragraph (3) point (b) of the Decision (EU) 2016/1701.

General comment: This box is applicable to the Annual Report. This box is intended to provide information on the results obtained from the implementation of the pilot study.

1. Aim of pilot study

Assess the impact of fishing gear on marine benthic habitats.

2. Duration of pilot study

One survey during 2020-2021 (approx. 3 working days at sea).

3. Methodology and expected outcomes of pilot study

It is planned to start the pilot study to assess the impact of fishing gear on marine benthic habitats in cooperation with Latvian Institute of Aquatic Ecology. The pilot study will consist of trawl surveys with commercial fishing gears to evaluate the direct impact of bottom fishing on biological resources and marine ecosystem in Latvian EEZ. Trawl surveys will be performed in cooperation with local commercial fisherman's and will include benthos sampling and video recording of benthic habitats before and after hauls.

*(max 900 words)*

Brief description of the results obtained (including deviations from planned and justifications as to why if this was not the case).

Trawl surveys at three preselected locations (Figure PS2.1) with commercial fishing gears were performed in cooperation with local commercial fisherman and included CTD casts, benthos sampling and video recording of benthic habitats before and after hauls.

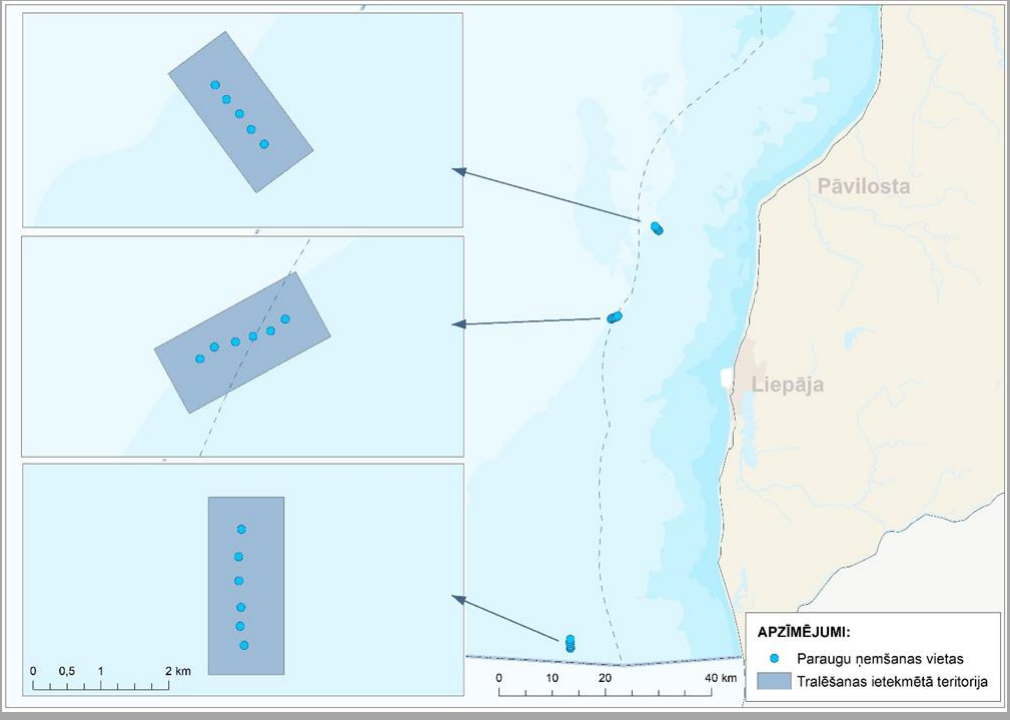



**Figure PS2.1.** Location of the realized benthos sampling points (marked with black dots) and bottom trawl affected area (marked with black rectangles), (2020, 25-28 July).

The results of video material revealed that the preselected areas were previously undisturbed by benthic trawling or any other activity that could have impacted integrity of benthic habitats. Furthermore, the comparative analysis of video material before and after trawling exercise revealed only limited impact by trawl on benthic habitat integrity, e.g., marking left by the trawl doors was visible, however, marking by trawl section that is between doors was not. This conclusion should be confirmed by the results of macrozoobenthos community analyses. The laboratory analyses are completed; however, data analyses are still pending. The results suggest that particular attention should be directed towards trawl construction, as the trawl used in the experiment was fitted with relatively large rubber wheels, as well as at trawling practice, since the impact of trawling on benthic habitats would differ depending on the adjustable distance between trawl and sediment surface.

4. Achievement of the original expected outcomes of pilot study and justification if this was not the case

Expected outcomes were achieved. It is planned to continue the pilot study (including field sampling) in 2021.

5. Incorporation of results from pilot study into regular sampling by the MS

Incorporation into regular sampling will be justified after evaluation of the pilot study results and considering the changes in the bottom trawling intensity. In last years bottom trawling effort in the Latvian EEZ was significantly decreased due to the cod fishing ban.

(max 900 words)

## Text Box 1G: List of research surveys at sea

General comment: This box fulfills Chapter IV of the multiannual Union programme and Article 2 and Article 7 paragraph (3) of the Decision (EU) 2016/1701. It is intended to specify which reseach surveys at sea set out in Table 10 of the multiannual Union programme will be carried out. Member States shall specify whether the research survey is included in Table 10 of the multiannual Union programme or whether it is an additional survey.

General comment: This box is applicable to the Annual Report. This box should provide complementary information on the performance of the surveys, the results and their main use.

**Baltic International Trawl Survey in the first quarter (BITS Q1).**

1. Objectives of the survey

The survey will be conducted in February-March on the rented research vessel. The primary purpose of the survey is to produce abundance estimates and indices of recruitment for cod and flounder in the Eastern Baltic (Sub-divisions 25-32) that are necessary for tuning VPA and prediction of the recruitment. Other species are also intensively investigated to support ecosystem analyses.

2. Description of the methods used in the survey. For mandatory surveys, link to the manuals. Include a graphical representation (map)

The data will be collected according to "Manual for the Baltic International Trawl Surveys (BITS). Version 2.0" (WGBIFS, 2017, https://bit.ly/2Pe12tB).The trawling is performed during daylight. The trawling is performed using standard scientific trawl TV-3#-930. Vessel speed during trawling should be 3.0 knots, each first control-haul duration should be 30 minutes however, at location with very dense fish shoals catching will be reduced to 15 minutes. Trawling is performed accordingly to the ICES WGBIFS determined catch-stations scheme (Fig.G.1.A). Each consecutive fish catch should be sorted out by species in separate boxes or baskets and weighted. The sorted and weighed fish are then used for the length, age and maturity sampling and measurements. Biological sampling procedure and length measurements are performed for cod and flounder. Length distribution should be recorded for all other species from every trawl-station, but with less intensity. For all species the total number and weight is recorded. Sampling level for all species is stratified on the ICES Sub-division level. The age determination is performed in national laboratory. During the survey also the basic hydrological parameters (temperature, salinity, oxygen content) will be measured, collection of ichthyoplankton samples and samples of stomachs of cod will be collected as well as information about marine litter. Collecting the data from the echo-integration conducted during the haul time and between hauls locations will be performed. Collected data are stored in ICES database DATRAS, as well as in the local database BIODATA.

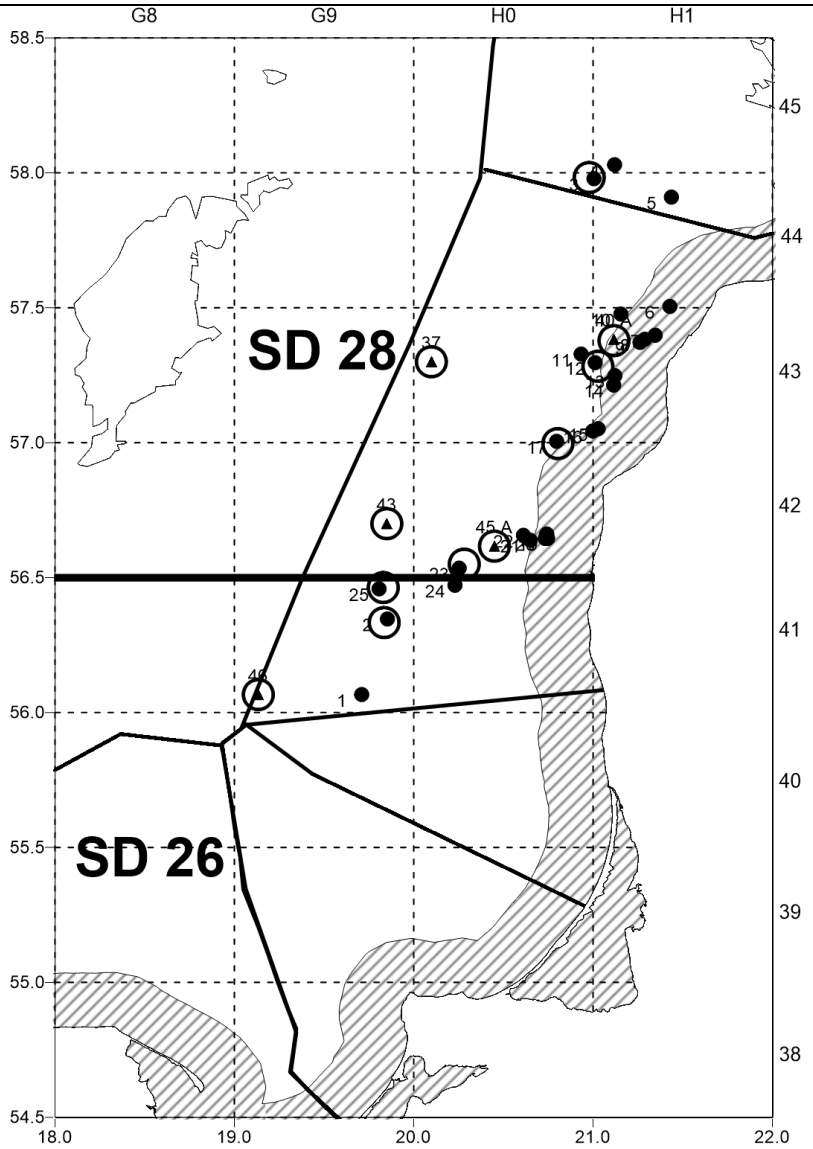



**Figure G.1.A.** Location of the realized fish control-hauls (marked with black dots) and the HELCOM standard hydrological stations (marked with black triangles), ichthyoplankton stations (marked with black circles, black lines - national fishing zone borders (BITS 2018, March).

3. For internationally coordinated surveys, describe the participating Member States/ vessels and the relevant international group in charge of planning the survey

The survey is conducted in collaboration with national institutes from Denmark, Germany, Poland, Lithuania and Sweden within the framework of ICES. Survey is part of the Baltic International Trawl Surveys (BITS), which is coordinated by the ICES Baltic International Fish Survey Working Group [WGBIFS].

4. Where applicable, describe the international task-sharing (physical and/or financial) and the cost-sharing agreement used

From 2006, Latvian BITS survey is carried out on the rented Polish r.v. "Baltica". No cost sharing agreement is used.

5. Explain where thresholds apply

No thresholds were applied for this survey.

*(max. 450 words per survey)*

6. Graphical representation (map) showing the positions (locations) of the realized samples.

Member State shall provide maps presenting the spatial distribution of the main sampling types obtained during the survey.

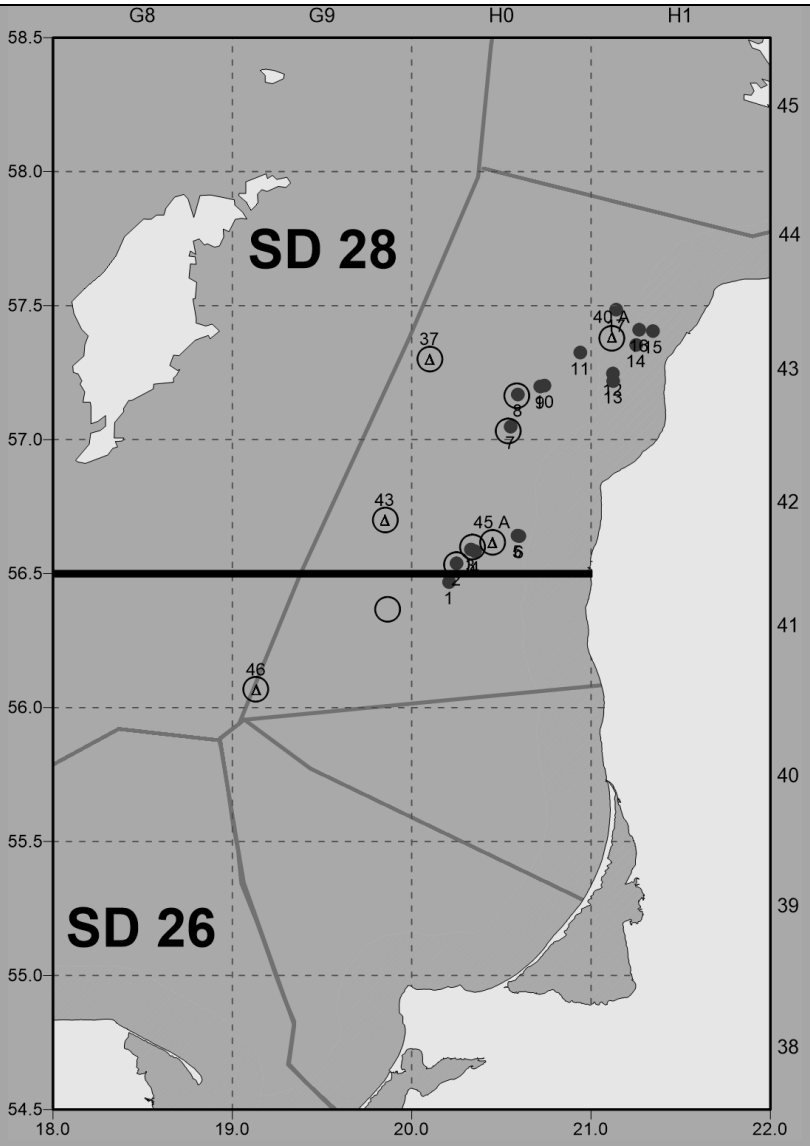



**Figure G.1.** Location of the realized fish control-hauls (marked with black dots) and the HELCOM standard hydrological stations (marked with black triangles), ichthyoplankton stations (marked with black circles, black lines - national fishing zone borders (BITS 2020, March).

7. For internationally coordinated surveys, provide a link to the latest meeting report of the coordination group.

Member State shall provide a hyperlink to the meeting report from the body coordinating the survey (ICES, MEDITS coordination group, MEDIAS coordination group etc.). For non-international coordinated surveys, Member State shall refer to any status report (e.g. Cruise report).

The ICES Working Group on Baltic International Fish Survey (WGBIFS) latest meeting report can be found at:

https://www.ices.dk/sites/pub/Publication%20Reports/Forms/DispForm.aspx?ID=37344

8. List the main use of the results of the survey (e.g. indices, abundance estimates, environmental indicators).

Member State shall specify in which context the results are used (on routine basis), both on an international as well as on a national context.

Obtained data (e.g. cpue indices, abundance estimates) are used for the assessment of Baltic cod and flounder stocks during the annual ICES Baltic Fisheries Assessment Working Group (WGBFAS).

9. Extended comments (Tables 1G and 1H)

If the Member State has extended AR Comments, these can be placed under this section. If this is the case, a reference to this text box should be provided in the corresponding tables.

*(max 450 words per survey)*

**Baltic International Trawl Survey in the first quarter (BITS Q4).**

1. Objectives of the survey

The survey will be conducted in November-December on the rented research vessel. The primary purpose of the survey is to produce abundance estimates and indices of recruitment for cod and flounder in the Eastern Baltic (Sub-divisions 25-32) that are necessary for tuning VPA and prediction of the recruitment. Other species are also intensively investigated to support ecosystem analyses.

2. Description of the methods used in the survey. For mandatory surveys, link to the manuals. Include a graphical representation (map)

The data will be collected according to "Manual for the Baltic International Trawl Surveys. Version 2.0" (WGBIFS, 2017, https://bit.ly/2Pe12tB) with the same methodology used in Baltic International Trawl Survey in the first quarter (BITS Q1). Trawling is performed accordingly to the ICES WGBIFS determined catch-stations scheme (Fig.G.2.A). Collected data are stored in ICES database DATRAS, as well as in the local database BIODATA.

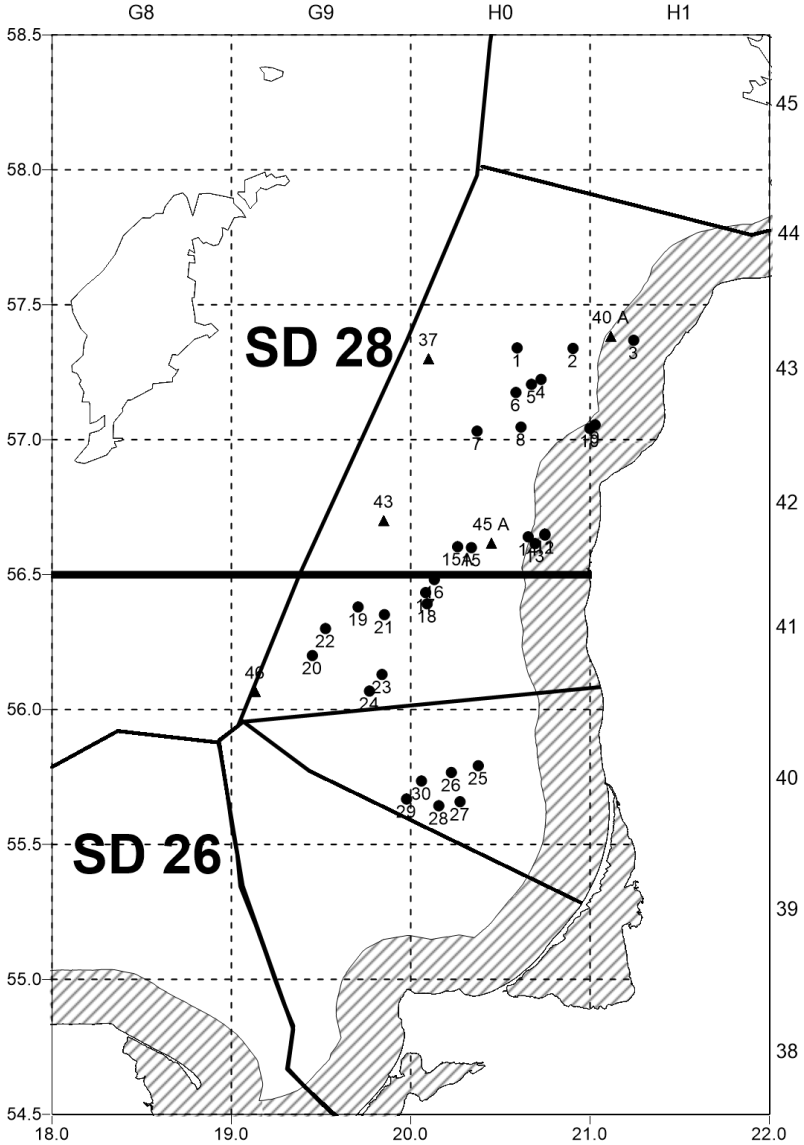



**Figure G.2.A.** Location of the realized fish control-hauls (marked with black dots) and the HELCOM standard hydrological stations (marked with black triangles), black lines - national fishing zone borders (BITS 2018, December).

3. For internationally coordinated surveys, describe the participating Member States/ vessels and the relevant international group in charge of planning the survey

The survey is conducted in collaboration with national institutes from Denmark, Germany, Poland, Lithuania, Estonia and Sweden within the framework of ICES. Survey is part of the Baltic International Trawl Survey (BITS), which is coordinated by the ICES Baltic International Fish Survey Working Group [WGBIFS].

4. Where applicable, describe the international task-sharing (physical and/or financial) and the cost-sharing agreement used

From 2006, Latvian BITS survey is carried out on the rented Polish r.v. "Baltica". No cost sharing agreement is used.

5. Explain where thresholds apply

No thresholds were applied for this survey.

*(max. 450 words per survey)*

6. Graphical representation (map) showing the positions (locations) of the realized samples.

Member State shall provide maps presenting the spatial distribution of the main sampling types obtained during the survey.

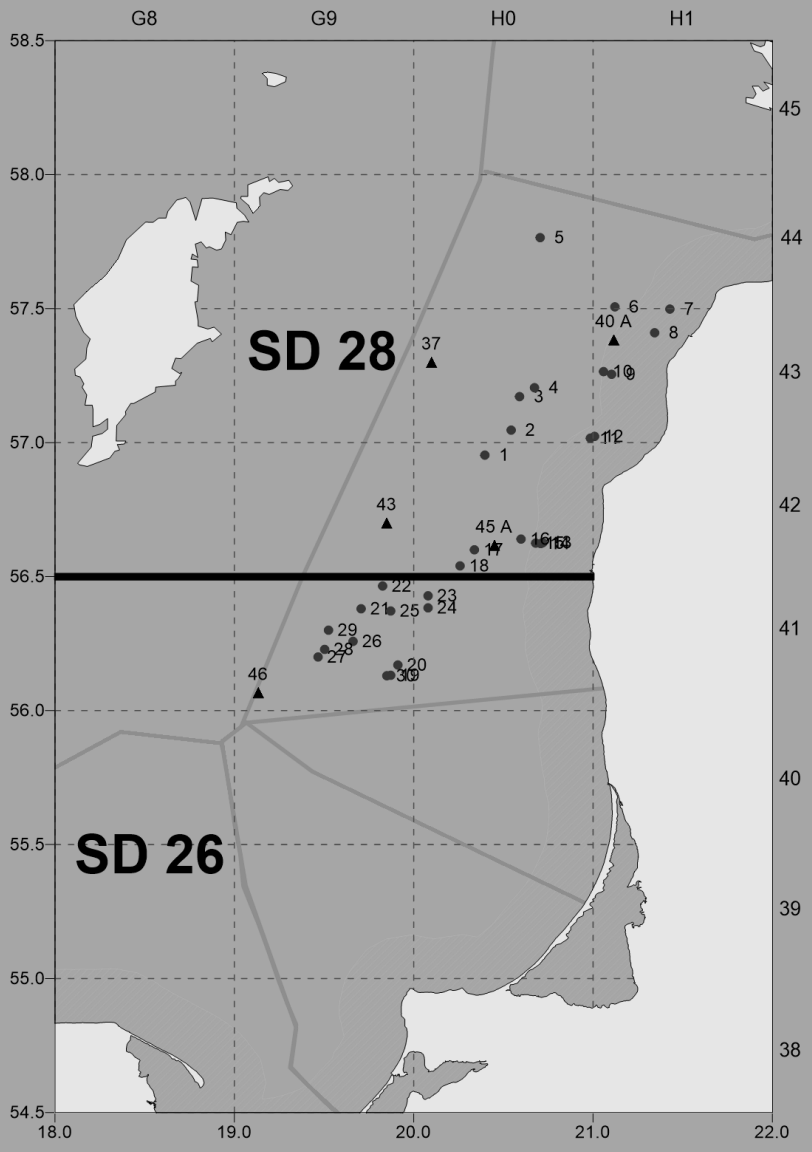



**Figure G.2.** Location of the realized fish control-hauls (marked with black dots) and the HELCOM standard hydrological stations (marked with black triangles), black lines - national fishing zone borders (BITS 2020, December).

7. For internationally coordinated surveys, provide a link to the latest meeting report of the coordination group.

Member State shall provide a hyperlink to the meeting report from the body coordinating the survey (ICES, MEDITS coordination group, MEDIAS coordination group etc.). For non-international coordinated surveys, Member State shall refer to any status report (e.g. Cruise report).

The ICES Working Group on Baltic International Fish Survey (WGBIFS) latest meeting report can be found at:

https://www.ices.dk/sites/pub/Publication%20Reports/Forms/DispForm.aspx?ID=37344

8. List the main use of the results of the survey (e.g. indices, abundance estimates, environmental indicators).

Member State shall specify in which context the results are used (on routine basis), both on an international as well as on a national context.

Obtained data (e.g. cpue indices, abundance estimates) are used for the assessment of Baltic cod and flounder stocks during the annual ICES Baltic Fisheries Assessment Working Group (WGBFAS).

WGBIFS recommends to use the data obtained and uploaded to DATRAS for the 4th quarter 2020 for calculating survey indices for the relevant cod and flatfish stocks.

9. Extended comments (Tables 1G and 1H)

If the Member State has extended AR Comments, these can be placed under this section. If this is the case, a reference to this text box should be provided in the corresponding tables.

BITS Q4 was performed on R/V Baltica with Polish scientific team due to travel restriction related to Covid-19. Survey was done according to manual and supervision of Latvian team from coast.

*(max 450 words per survey)*

**Baltic International Acoustic Survey in autumn (BIAS)**

1. Objectives of the survey

The survey will be performed in September-October. The survey will be performed on a rented research vessel. The main aims of the survey are to obtain abundance estimates of herring and sprat which are used for tuning VPA for the assessment of herring in Sub-divisions 25-29, +32 and of sprat in Sub-divisions 22-32 of the Baltic Sea.

2. Description of the methods used in the survey. For mandatory surveys, link to the manuals. Include a graphical representation (map)

The survey will be carried out in Sub-divisions 26 and 28. The survey will be performed also in the 12 nm zone of Latvian economic zone. The survey track is standard Trawling is performed accordingly to the ICES WGBIFS determined catch-stations scheme (Fig.G.3.1.A).

The data will be collected according to Manual for the Baltic International Acoustic Survey (BIAS) Version 2.0. (WGBIFS, 2017, https://bit.ly/2MI3p6o). From each trawl the length, weight, sex and maturity of herring and sprat are determined and otoliths for age determination are taken. During the survey also the basic hydrological parameters (temperature, salinity, oxygen content) will be measured, and samples of zooplankton will be collected Trawling is performed accordingly to the ICES WGBIFS determined catch-stations scheme (Fig.G.3.2.A). Collected data are stored in ICES databases BAD1, as well as in the local database BIODATA

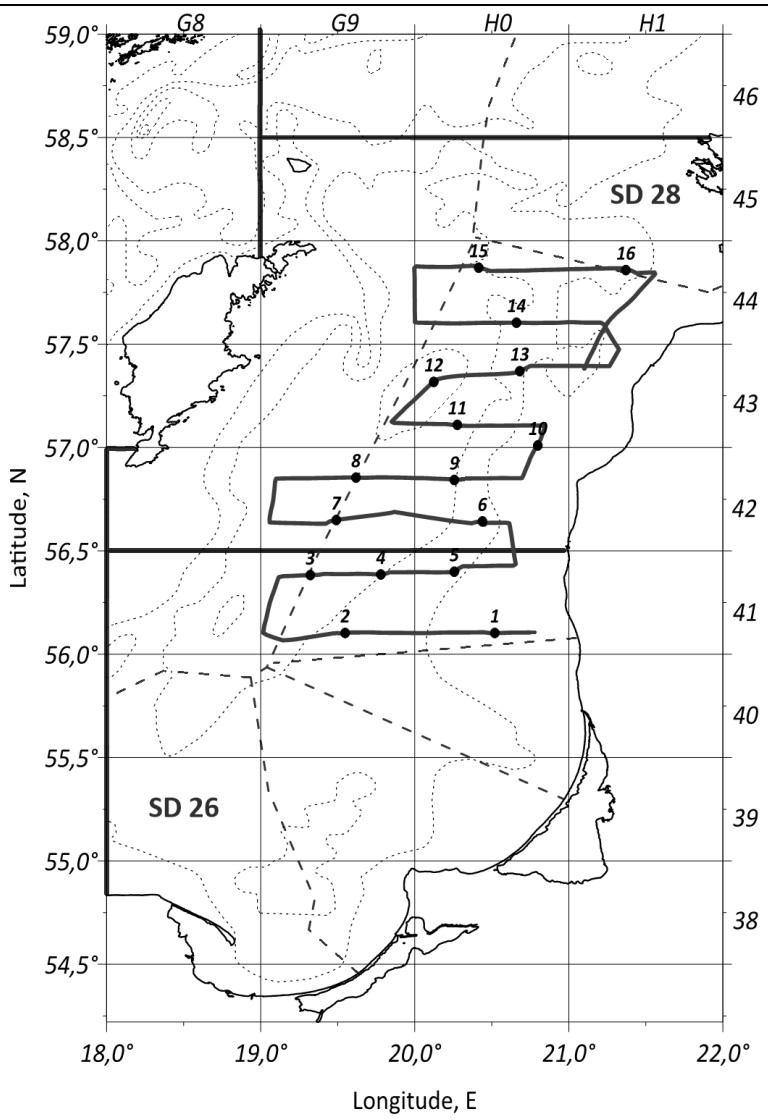



**Figure G.3.1.A.** Cruise track design and trawling positions of the Latvian hydro acoustic survey on the f/v "Ulrika" in the period of 17.-26.10.2018. Black curved line describes survey tracks, black dots with numbers above shows trawling stations.

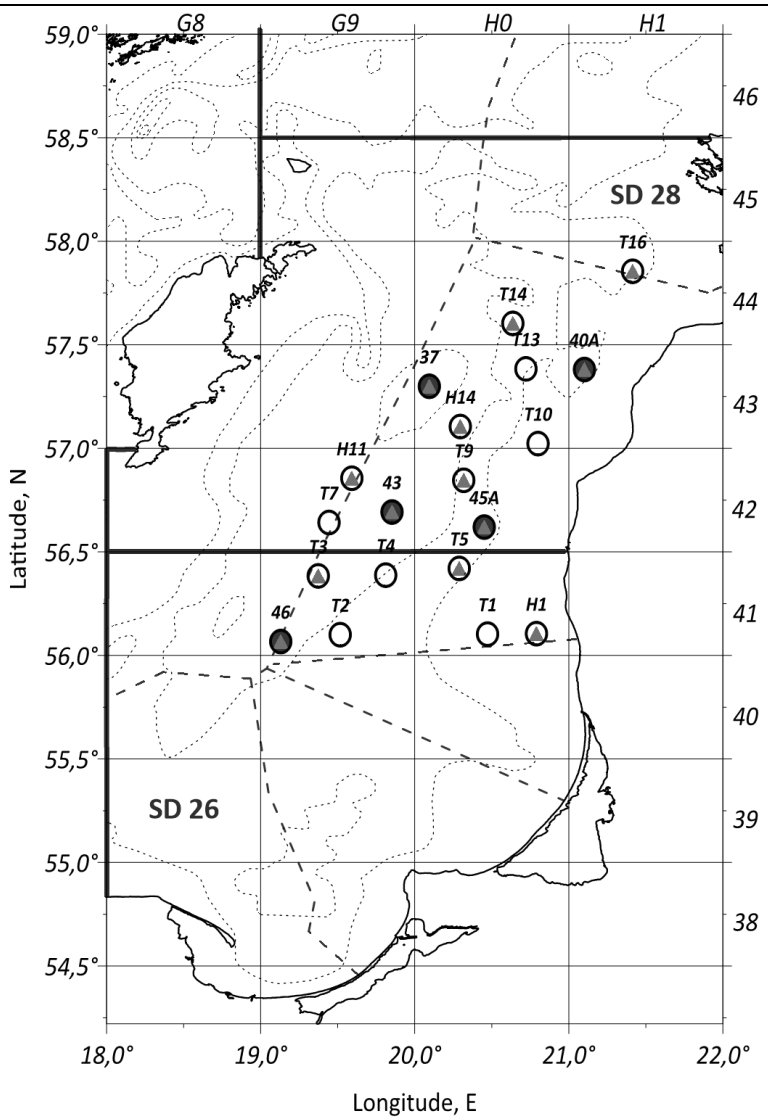



**Figure G.3.2.A.** Locations of the realized hydrological and zooplankton stations performed during the Latvian BIAS on the f/v "Ulrika" in the period of 17.-26.10.2018. Rings describes hydrological stations only, rings with triangles inside shows stations where both hydrology and zooplankton samples were taken, dark dots with triangles inside marked international standard or HELCOM stations.

3. For internationally coordinated surveys, describe the participating Member States/ vessels and the relevant international group in charge of planning the survey

The survey is conducted in collaboration with national institutes from Finland, Germany, Poland, Estonia, Lithuania and Sweden within the framework of ICES. Survey is part of the Baltic International Acoustic Survey (BIAS), which is coordinated by the ICES Baltic International Fish Survey Working Group [WGBIFS].

4. Where applicable, describe the international task-sharing (physical and/or financial) and the cost-sharing agreement used

From 2005, Latvian BIAS survey is carried out on the rented Polish r.v. “Baltica”. No cost sharing agreement is used.

5. Explain where thresholds apply

No thresholds were applied for this survey.

*(max. 450 words per survey)*

6. Graphical representation (map) showing the positions (locations) of the realized samples.

Member State shall provide maps presenting the spatial distribution of the main sampling types obtained during the survey.

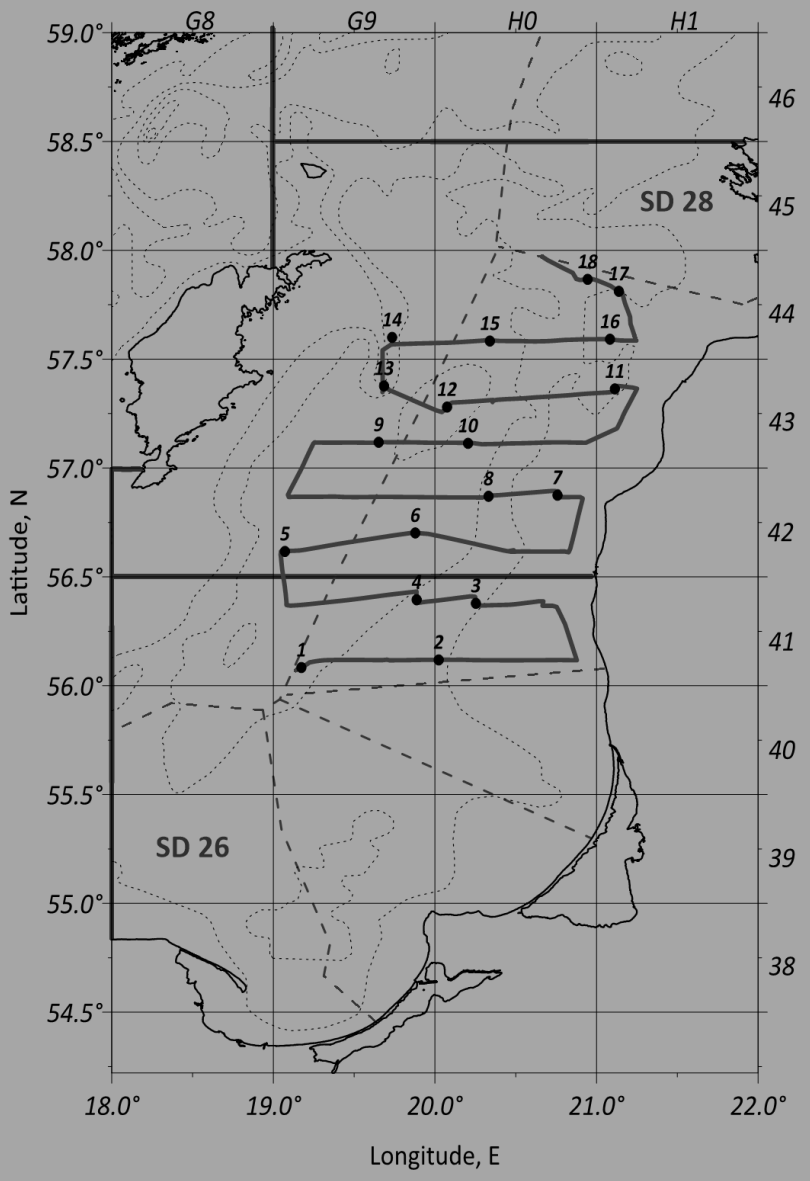



**Figure G.3.1.** Cruise track design and trawling positions of the Latvian hydro acoustic survey on the r/v "Baltika" in the period of 8.-17.10.2020. Dark brown curved line describes survey tracks, black dots with numbers above shows trawling stations.

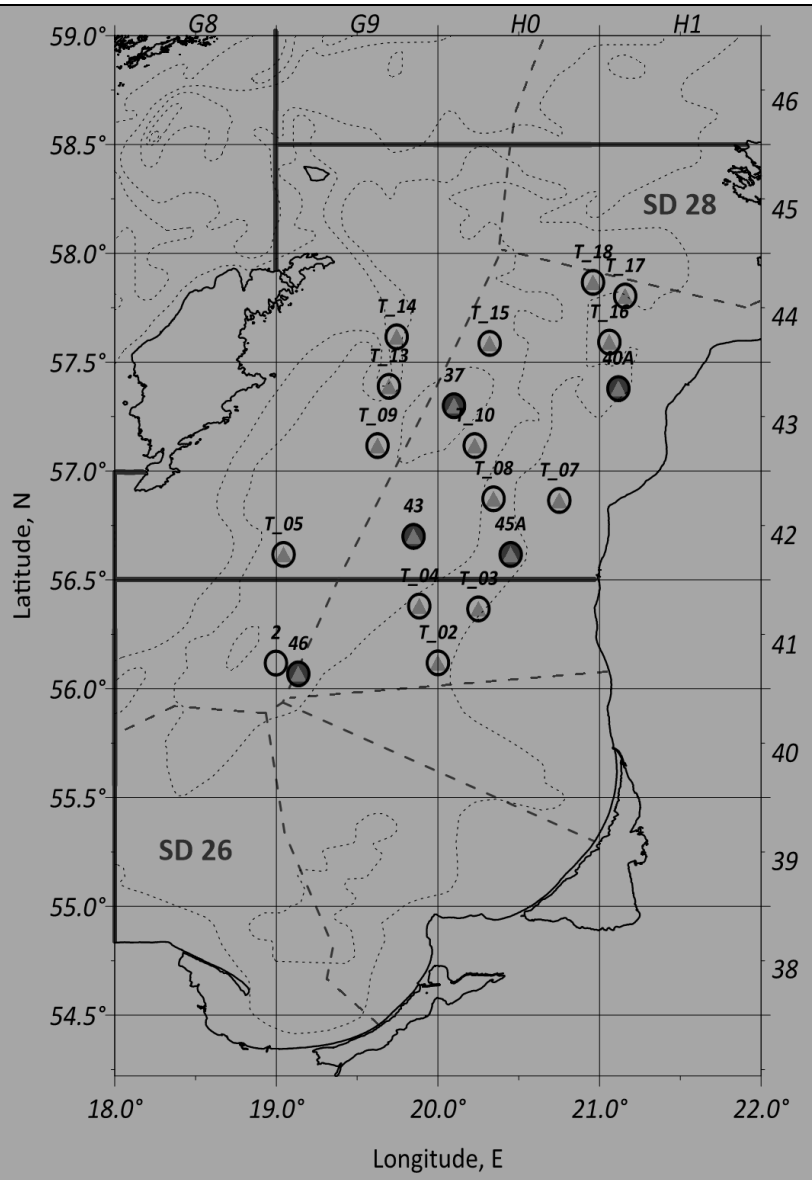



**Figure G.3.2.** Locations of the realized hydrological and zooplankton stations performed during the Latvian BIAS on the r/v "Baltica" in the period of 08.-17.10.2020. Rings describes hydrological stations only, rings with triangles inside shows stations where both hydrology and zooplankton samples were taken, filled dots with triangles inside marked international standard or HELCOM stations.

7. For internationally coordinated surveys, provide a link to the latest meeting report of the coordination group.

Member State shall provide a hyperlink to the meeting report from the body coordinating the survey (ICES, MEDITS coordination group, MEDIAS coordination group etc.). For non-international coordinated surveys, Member State shall refer to any status report (e.g. Cruise report).

The ICES Working Group on Baltic International Fish Survey (WGBIFS) latest meeting report can be found at:

https://www.ices.dk/sites/pub/Publication%20Reports/Forms/DispForm.aspx?ID=37344

8. List the main use of the results of the survey (e.g. indices, abundance estimates, environmental indicators).

Member State shall specify in which context the results are used (on routine basis), both on an international as well as on a national context.

The main aims of the survey are to obtain abundance estimates of sprat and herring which are used for tuning VPA in Sub-divisions 22-32 of the Baltic Sea. The survey is suitable for the calculation of the ecosystem indicators 1 to 4.

9. Extended comments (Tables 1G and 1H)

If the Member State has extended AR Comments, these can be placed under this section. If this is the case, a reference to this text box should be provided in the corresponding tables.

BIAS was performed on R/V Baltica with Polish scientific team due to travel restriction related to Covid-19. Survey was done according to manual and supervision of Latvian team from coast.

Bad weather conditions negatively influenced the realization of all planned survey tracks and control-hauls, 1 working day during the survey was lost.

*(max 450 words per survey)*

**Gulf of Riga Acoustic Herring Survey – GRAHS.**

1. Objectives of the survey

The survey will be performed in July-August on a rented fishing vessel in the Gulf of Riga (Subdivision 28.1). The main aim of the survey is to obtain abundance estimates of the Gulf of Riga herring which are used for tuning VPA for the assessment of the Gulf of Riga herring (separate assessment unit).

2. Description of the methods used in the survey. For mandatory surveys, link to the manuals. Include a graphical representation (map)

The data will be collected according to Manual for the Baltic International Acoustic Survey (BIAS) Version 2.0. (WGBIFS, 2017, https://bit.ly/2MI3p6o). From each trawl the length, weight, sex and maturity of herring and otoliths for age determination are taken. During the survey also the basic hydrological parameters (temperature, salinity, oxygen content) are measured, and the samples of zooplankton will be collected Trawling is performed accordingly to the ICES WGBIFS determined catch-stations scheme (Fig.G.4.A). Collected data are stored in national database BIODATA.

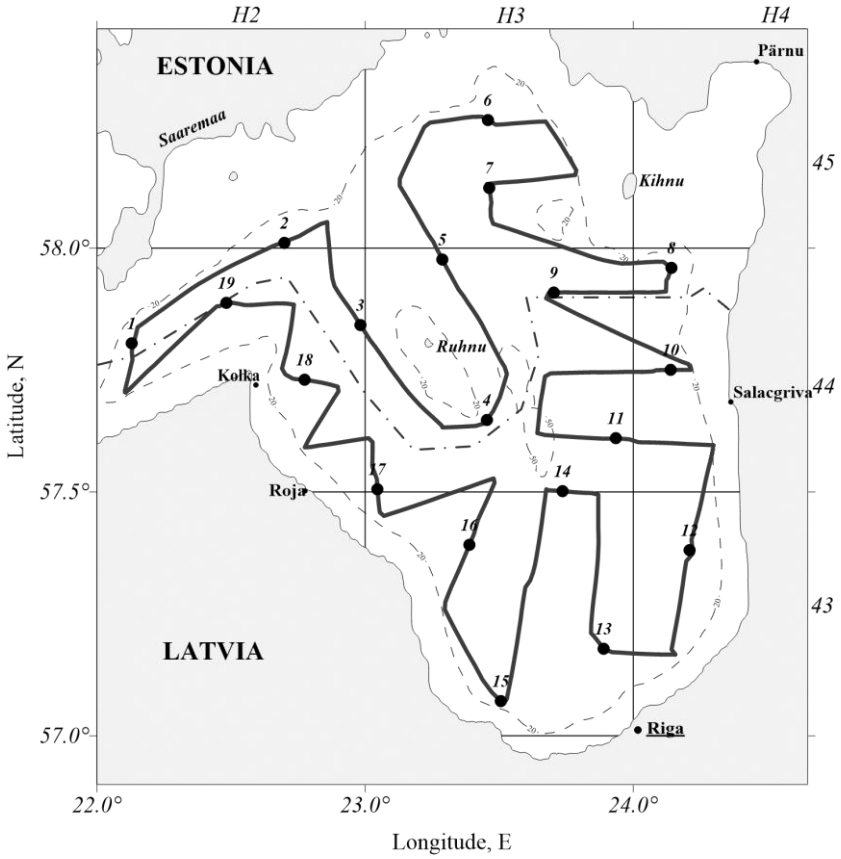



**Figure G.4.A.** Cruise track design and trawling positions of the Latvian-Estonian hydro acoustic survey in the Gulf of Riga in the period of 25.-31.07.2018. Black curved line describes survey tracks, black dots with numbers above show trawling stations. Hydrological stations are made in the positions of trawling.

3. For internationally coordinated surveys, describe the participating Member States/ vessels and the relevant international group in charge of planning the survey

The survey is conducted in collaboration with national institute from Estonia within the framework of ICES. Survey is coordinated by the ICES Baltic International Fish Survey Working Group [WGBIFS].

4. Where applicable, describe the international task-sharing (physical and/or financial) and the cost-sharing agreement used

Survey is carried out on the rented fishing vessel. Cooperation is based on the agreement between the Institute of Food Safety, Animal Health and Environment "BIOR" in Riga and Latvian commercial fishing company selected at procurement procedure. During the survey, Latvian scientists work together with Estonian colleagues from Estonian Marine Institute (EMI). No cost sharing agreement is used.

5. Explain where thresholds apply

No thresholds were applied for this survey.

*(max. 450 words per survey)*

6. Graphical representation (map) showing the positions (locations) of the realized samples.

Member State shall provide maps presenting the spatial distribution of the main sampling types obtained during the survey.

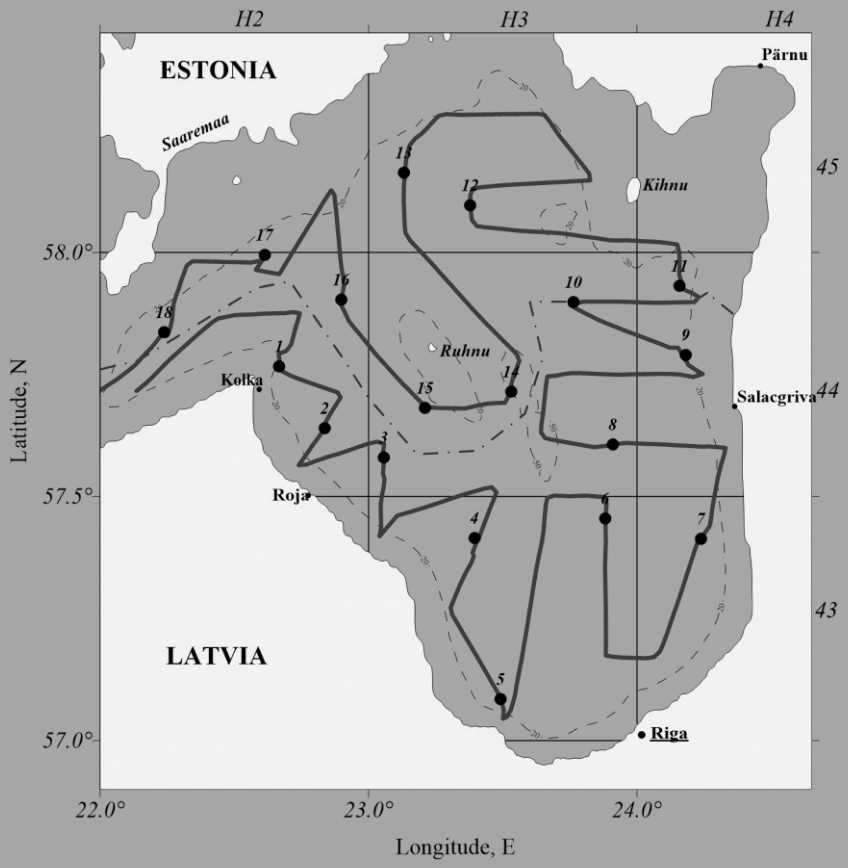



**Figure G.4.** Cruise track design and trawling positions of the Latvian-Estonian hydro acoustic survey in the Gulf of Riga in the period of 05-10.08.2020. Black curved line describes survey tracks, black dots with numbers above show trawling stations.

7. For internationally coordinated surveys, provide a link to the latest meeting report of the coordination group.

Member State shall provide a hyperlink to the meeting report from the body coordinating the survey (ICES, MEDITS coordination group, MEDIAS coordination group etc.). For non-international coordinated surveys, Member State shall refer to any status report (e.g. Cruise report).

The ICES Working Group on Baltic International Fish Survey (WGBIFS) latest meeting report can be found at:

https://www.ices.dk/sites/pub/Publication%20Reports/Forms/DispForm.aspx?ID=37344

8. List the main use of the results of the survey (e.g. indices, abundance estimates, environmental indicators).

Member State shall specify in which context the results are used (on routine basis), both on an international as well as on a national context.

The main aim of the survey is to obtain abundance estimates of herring in the Gulf of Riga which are used for tuning VPA for the assessment of the Gulf of Riga herring (separate assessment unit). The survey is suitable for the calculation of the ecosystem indicators 1 to 3.

9. Extended comments (Tables 1G and 1H)

If the Member State has extended AR Comments, these can be placed under this section. If this is the case, a reference to this text box should be provided in the corresponding tables.

*(max 450 words per survey)*

**Sprat Acoustic Survey – SPRAS**

1. Objectives of the survey

The survey will be performed in May on rented research vessel or a rented trawler. The main aim of the survey is to obtain abundance estimates for sprat. The data are used for maturity not available from other sources. Collected data are stored in ICES databases BAD1, as well as in the local database BIODATA.

2. Description of the methods used in the survey. For mandatory surveys, link to the manuals. Include a graphical representation (map)

The data will be collected according to Manual for the Baltic International Acoustic Survey (BIAS) Version 2.0. (WGBIFS, 2017, https://bit.ly/2MI3p6o). From each trawl the length, weight, sex and maturity of herring and sprat are determined and otoliths for age determination are taken. During the survey also the basic hydrological parameters (temperature, salinity, oxygen content) will be measured, and samples of zooplankton, and ichthyoplankton will be collected. The survey track is standard (Fig.G.5.A; Fig.G.6.A).

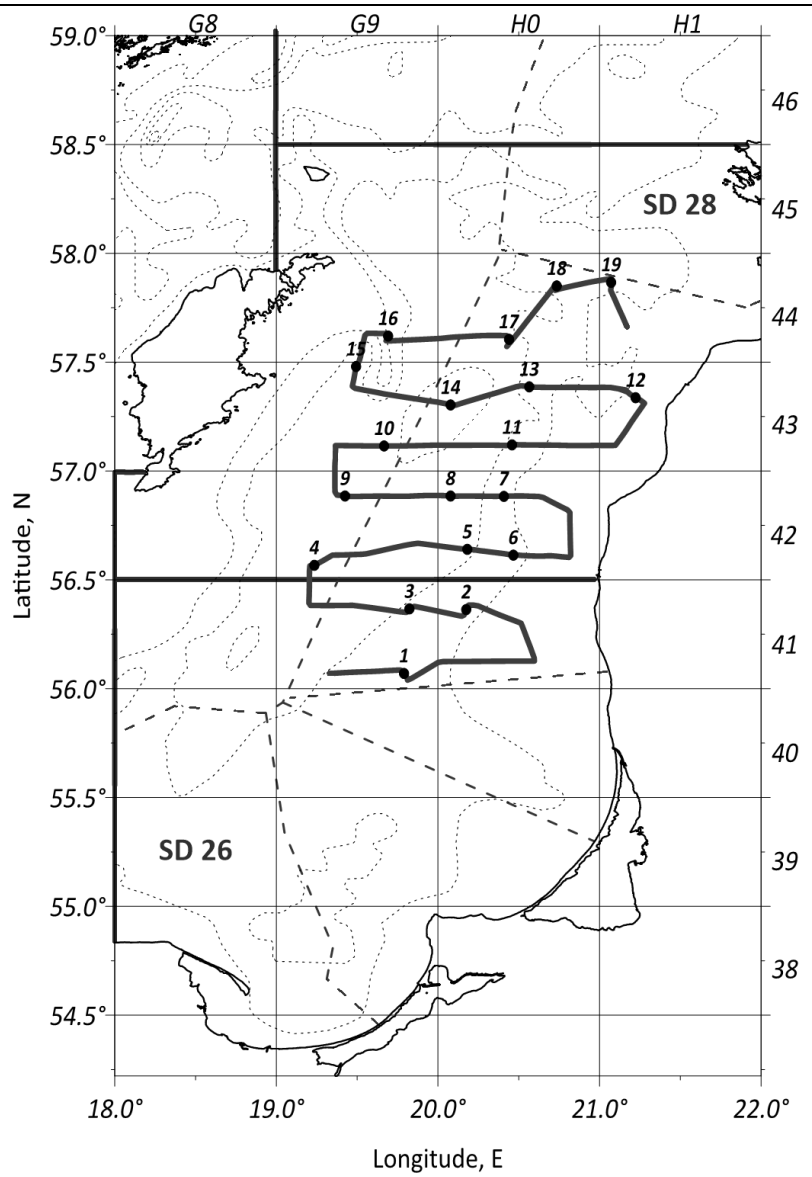



**Figure G.5.A.** Cruise track design and hauls of the Latvian-Polish joint Baltic Acoustic Spring Survey on the r/v "Baltica", 18-25.05.2018. Black curved line describes survey tracks, black dots with numbers above show trawling stations.

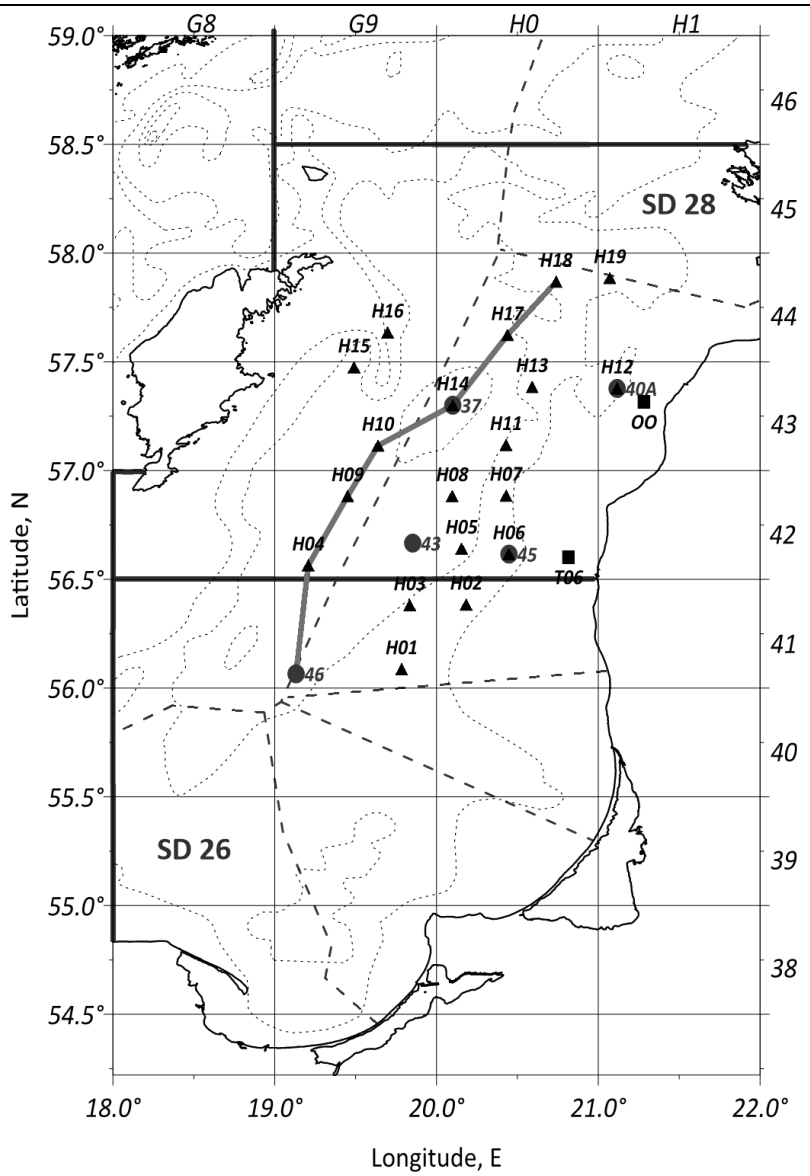



**Figure G.6.A.** Hydrological, ichthyoplankton and zooplankton stations performed during Latvian-Polish joint sprat acoustic survey (SPRAS or BASS) in May 2018 on r/v "Baltica" (triangles - trawling positions, squares - turning points of acoustic track, circles - positions of HELCOM standard stations, line - hydrological transect).

3. For internationally coordinated surveys, describe the participating Member States/ vessels and the relevant international group in charge of planning the survey

The survey is conducted in collaboration with national institutes from Germany, Estonia and Lithuania within the framework of ICES. Survey is part of the Baltic International Sprat Acoustic Survey (SPRAS), which is coordinated by the ICES Baltic International Fish Survey Working Group [WGBIFS].

4. Where applicable, describe the international task-sharing (physical and/or financial) and the cost-sharing agreement used

No cost sharing agreement is used.

5. Explain where thresholds apply

No thresholds were applied for this survey.

*(max. 450 words per survey)*

6. Graphical representation (map) showing the positions (locations) of the realized samples.

Member State shall provide maps presenting the spatial distribution of the main sampling types obtained during the survey.

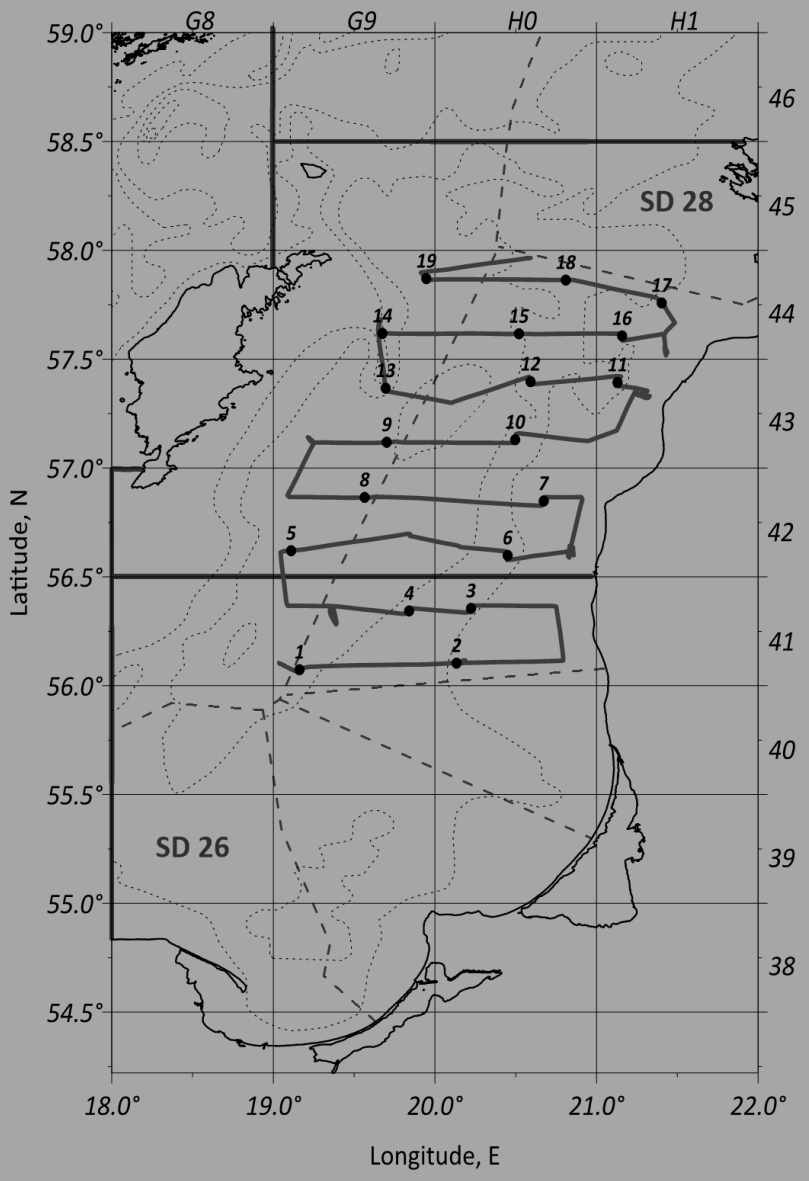



**Figure G.5.** Cruise track design and hauls of the Latvian-Polish joint Baltic Acoustic Spring Survey on the r/v "Baltica", 19-26.05.2020. Black curved line describes survey tracks, black dots with numbers above show trawling stations.

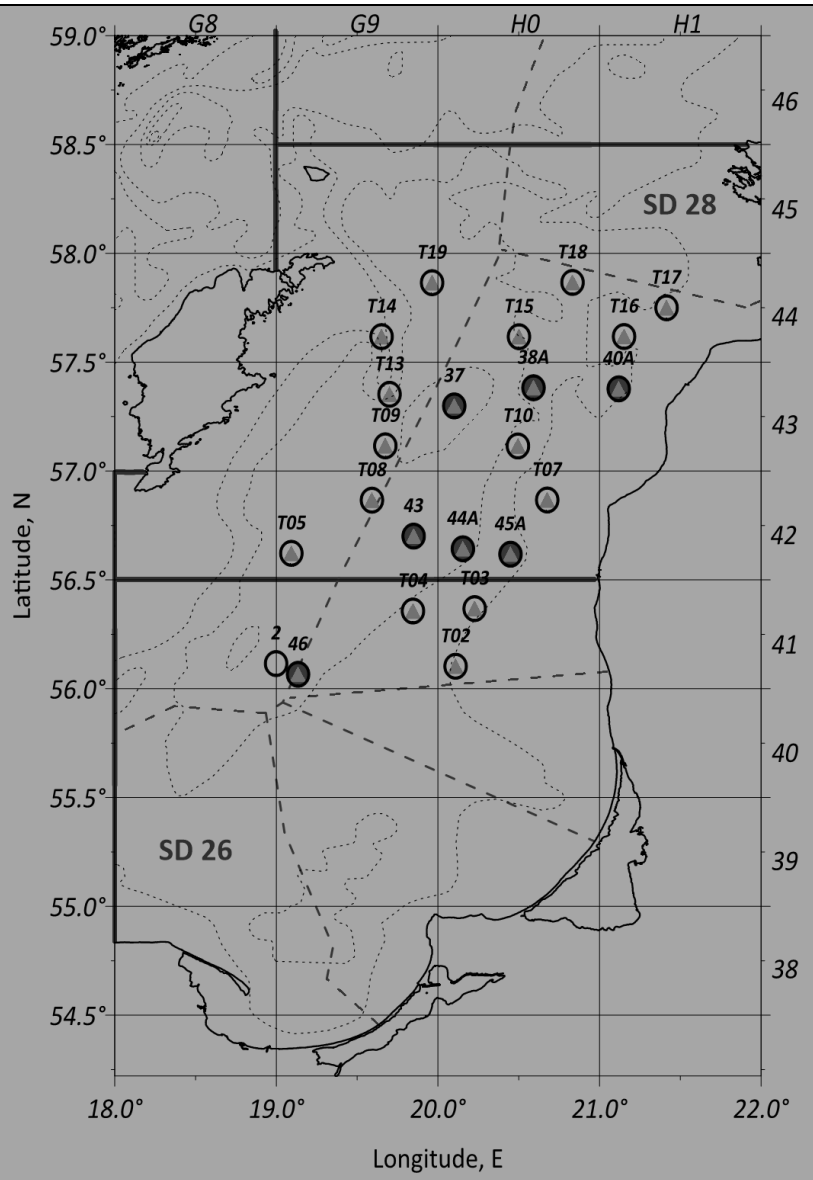



**Figure G.6.** Locations of the realized hydrological and zooplankton stations performed during the Latvian SPRAS on the r/v "Baltica" in the period of 19.-26.05.2020. Rings describes hydrological stations only, rings with triangles inside shows stations where hydrology, ichthyoplankton and zooplankton samples were taken, red dots with triangles inside marked international standard or HELCOM stations.

7. For internationally coordinated surveys, provide a link to the latest meeting report of the coordination group.

Member State shall provide a hyperlink to the meeting report from the body coordinating the survey (ICES, MEDITS coordination group, MEDIAS coordination group etc.). For non-international coordinated surveys, Member State shall refer to any status report (e.g. Cruise report).

The ICES Working Group on Baltic International Fish Survey (WGBIFS) latest meeting report can be found by,

https://www.ices.dk/sites/pub/Publication%20Reports/Forms/DispForm.aspx?ID=37344

8. List the main use of the results of the survey (e.g. indices, abundance estimates, environmental indicators).

Member State shall specify in which context the results are used (on routine basis), both on an international as well as on a national context.

The main aims of the survey are to obtain abundance estimates of sprat which are used for tuning VPA in Sub-divisions 22-32 of the Baltic Sea. The survey is suitable for the calculation of the ecosystem indicators 1 to 4.

9. Extended comments (Tables 1G and 1H)

If the Member State has extended AR Comments, these can be placed under this section. If this is the case, a reference to this text box should be provided in the corresponding tables.

Bad weather conditions negatively influenced the realization of all planned survey tracks and control-hauls, 1 working day during the survey were lost.

SPRAS was performed on R/V Baltica with Polish scientific team due to travel restriction related to Covid-19. Survey was done according to manual and supervision of Latvian team from coast.

The tasks of the survey concerning the route of the survey and the number of hauls performed during survey was lower than planned due to bad weather conditions during survey.

*(max 450 words per survey)*

**Latvian Flatfishes Juvenile Survey.**

1. Objectives of the survey

The survey will be performed from May to October in the coastal zone of the Baltic Sea. The main aim of the survey is to obtain abundance estimates of flatfish (flounder and turbot) juveniles.

2. Description of the methods used in the survey. For mandatory surveys, link to the manuals. Include a graphical representation (map)

The data will be collected with beach seine (mesh size in cod-end 8 mm) from the coast in surf zone of the Baltic sea on the main nursery area of flatfishes. The sampling area is approximately 4000 m2, the distance from the coastline is approximately 130 m. In every sampling area (Kolka - Gulf of Riga, Kolka – Irbe Strait, Lielirbe, Jurmalciems, Pape – Baltic Sea) 5 samples will be collected (Fig.G.7.A). Other species (fish and nektobenthos) are also intensively investigated to support ecosystem analyses. During the survey the basic hydrological parameters (temperature, salinity, and oxygen content) will be measured.

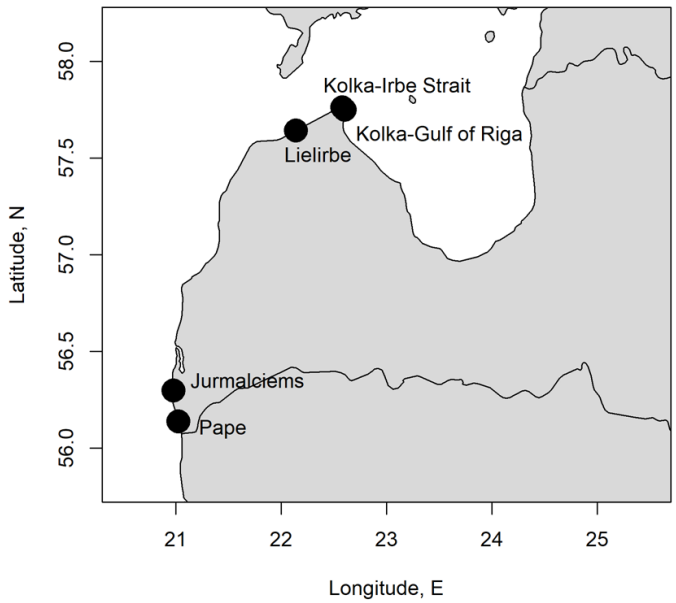



**Figure G.7.A.** Sampling places for the Latvian flatfishes juvenile survey in 2018. ● – sampling places.

3. For internationally coordinated surveys, describe the participating Member States/ vessels and the relevant international group in charge of planning the survey

This is not an internationally coordinated survey.

4. Where applicable, describe the international task-sharing (physical and/or financial) and the cost-sharing agreement used

No cost sharing agreement is used.

5. Explain where thresholds apply

No thresholds were applied for this survey.

*(max. 450 words per survey)*

6. Graphical representation (map) showing the positions (locations) of the realized samples.

Member State shall provide maps presenting the spatial distribution of the main sampling types obtained during the survey.

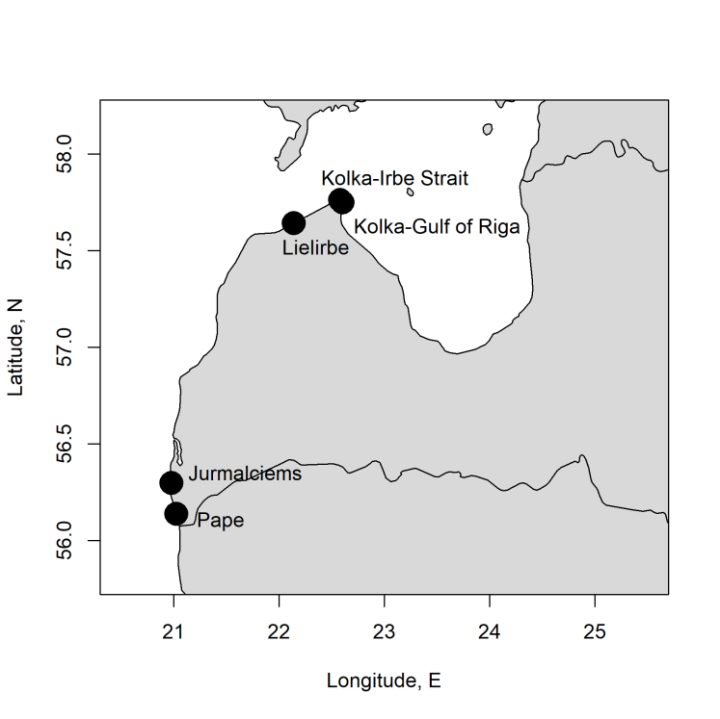



**Figure G.7.** Sampling places for the Latvian flatfishes juvenile survey in 2020. ● – sampling places.

7. For internationally coordinated surveys, provide a link to the latest meeting report of the coordination group.

Member State shall provide a hyperlink to the meeting report from the body coordinating the survey (ICES, MEDITS coordination group, MEDIAS coordination group etc.). For non-international coordinated surveys, Member State shall refer to any status report (e.g. Cruise report).

Information about survey is included in monthly report for Ministry of Agriculture based on National agreement as well as in annual scientific overview. More detailed information about Latvian Flatfishes Juvenile Survey is included in institute annual report.

8. List the main use of the results of the survey (e.g. indices, abundance estimates, environmental indicators).

Member State shall specify in which context the results are used (on routine basis), both on an international as well as on a national context.

The main aim of the survey is to obtain abundance estimates of flatfish (flounder and turbot) juveniles. This is not an internationally coordinated survey however it is planned to use the results of the survey in the assessment of flounder in the Central Baltic.

9. Extended comments (Tables 1G and 1H)

If the Member State has extended AR Comments, these can be placed under this section. If this is the case, a reference to this text box should be provided in the corresponding tables.

*(max 450 words per survey)*

**Gulf of Riga Demersal Fish survey**

1. Objectives of the survey

The survey is performed three times in a year - in May, August and October on a rented MRTK type fishing trawler in the Gulf of Riga (Sub-division 28.1). The primary purpose of the survey is to produce abundance estimates of benthic fish species and get hydrological (temperature, salinity, oxygen content) and zooplankton

samples in the trawling stations during the survey. The observations of the survey provide data on biological diversity changes in the Gulf of Riga.

2. Description of the methods used in the survey. For mandatory surveys, link to the manuals. Include a graphical representation (map)

The data will be collected according to "Manual for the Baltic International Trawl Surveys (BITS). Version 2.0" (WGBIFS, 2017, https://bit.ly/2Pe12tB). Stations cover the Gulf of Riga area from 8 m coastal zone till 56 m depth in locations that are selected on appropriate soil basis for benthic trawling (Fig.G.8.A). Trawling is performed with a special demersal trawl 18 m wide and 1.5 m high when in action and with 17 mm - 6 mm mesh size. Vessel speed during trawling is 3.0 knots, hauls duration is 30 minutes however, at location with very dense fish shoals catching will be reduced to 15 minutes. All benthic fishes and invertebrates are separated in the catch and analyzed.

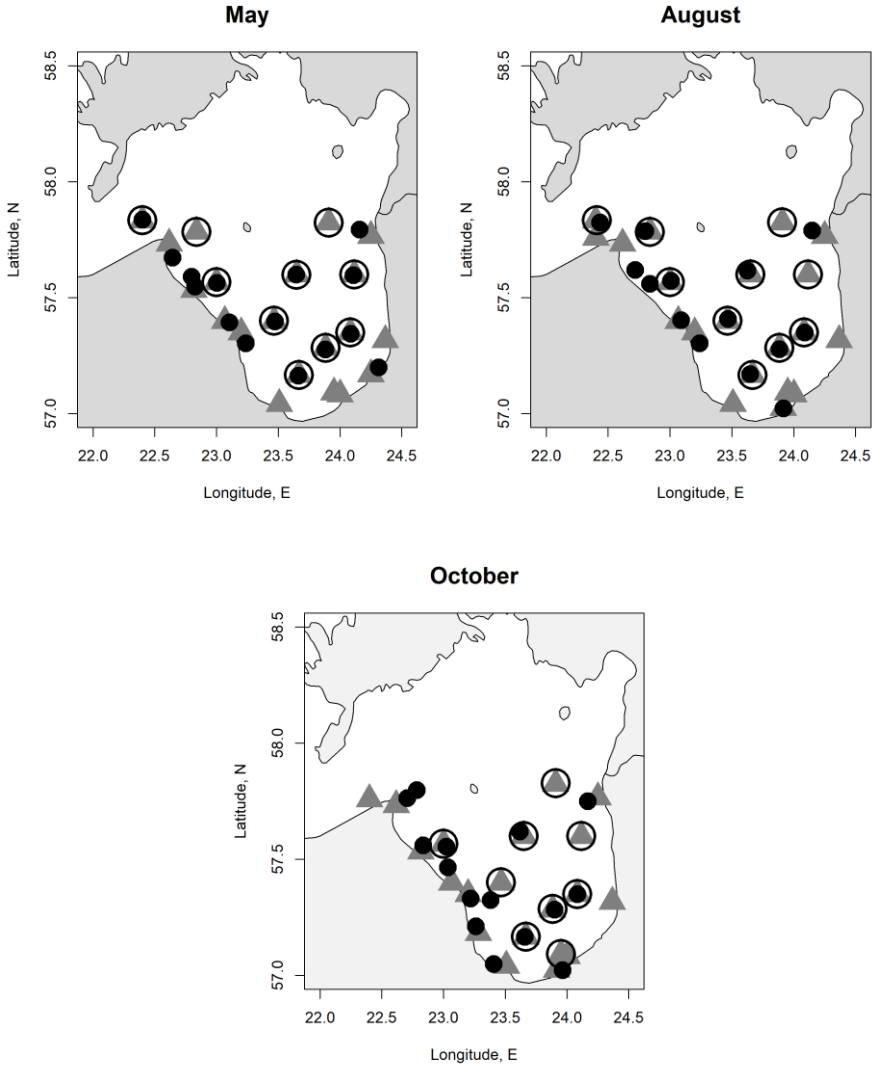



**Figure G.8.A.** Realized stations during Gulf of Riga Demersal Fish surveys (● trawling positions, ▲ oceano-graphic stations, O plankton stations (May, August, October 2018).

3. For internationally coordinated surveys, describe the participating Member States/ vessels and the relevant international group in charge of planning the survey

This is not an internationally coordinated survey.

4. Where applicable, describe the international task-sharing (physical and/or financial) and the cost-sharing agreement used

No cost sharing agreement is used.

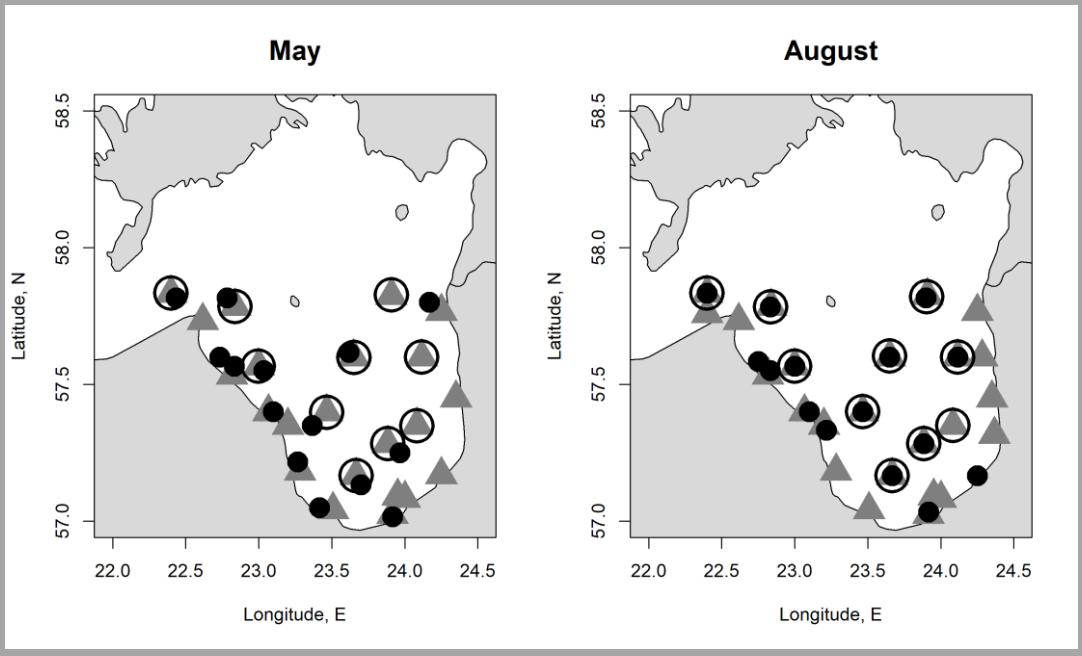
5. Explain where thresholds apply

No thresholds were applied for this survey.

*(max. 450 words per survey)*

6. Graphical representation (map) showing the positions (locations) of the realized samples.

Member State shall provide maps presenting the spatial distribution of the main sampling types obtained during the survey.



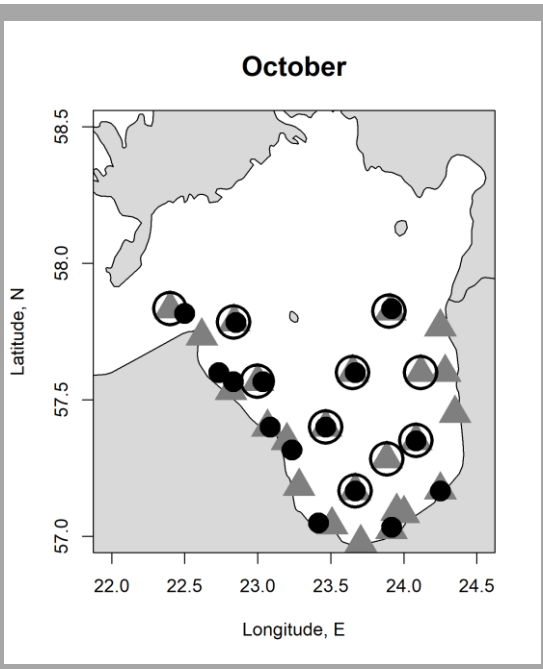




**Figure G.8.** Realized stations during **Gulf of Riga Demersal Fish surveys** (● trawling positions; ▲ oceanographic stations; O plankton stations (May, August, October 2020).

7. For internationally coordinated surveys, provide a link to the latest meeting report of the coordination group.

Member State shall provide a hyperlink to the meeting report from the body coordinating the survey (ICES, MEDITS coordination group, MEDIAS coordination group etc.). For non-international coordinated surveys, Member State shall refer to any status report (e.g. Cruise report).

Information about survey is included in monthly report for Ministry of Agriculture based on National agreement as well as in annual scientific overview. More detailed information about Gulf of Riga Demersal Fish survey is included in institute annual report.

8. List the main use of the results of the survey (e.g. indices, abundance estimates, environmental indicators).

Member State shall specify in which context the results are used (on routine basis), both on an international as well as on a national context.

The primary purpose of the survey is to produce abundance estimates of benthic fish species and get hydrological (temperature, salinity, oxygen content) and zooplankton samples in the trawling stations during the survey. The observations of the survey provide data on biological diversity changes in the Gulf of Riga.

9. Extended comments (Tables 1G and 1H)

If the Member State has extended AR Comments, these can be placed under this section. If this is the case, a reference to this text box should be provided in the corresponding tables.

*(max 450 words per survey)*

**Coastal fish monitoring.**

1. Objectives of the survey

The objective of survey is to monitor changes in the fish communities in relation to the impact of eutrophication, habitat alteration, climate change, toxic substances, alien species and fishery. The results of the survey are used for the management of fishery in the Latvian coastal zone.

2. Description of the methods used in the survey. For mandatory surveys, link to the manuals. Include a graphical representation (map)

Data are collected in Latvian coastal area at 3-5 m depth using Nordic coastal multi-mesh gillnets (Guidelines for Coastal Fish Monitoring Sampling Methods of HELCOM, 2015; https://bit.ly/2Pfhv0o.These nets are 45 m long and made up of 9 parts which have different mesh sizes (from 10 to 60 mm). Monitoring will be performed one (Jurkalne, Daugavgriva) and two (Pape) times per year, but in the rest of areas – once (Salacgriva) andr twice (Liepaja, Plienciems) per month, from March until November (Fig.G.9.A). Length and weight of all fishes is measured and other information like weather conditions, depth, water temperature, salinity and Secchi depth are recorded.

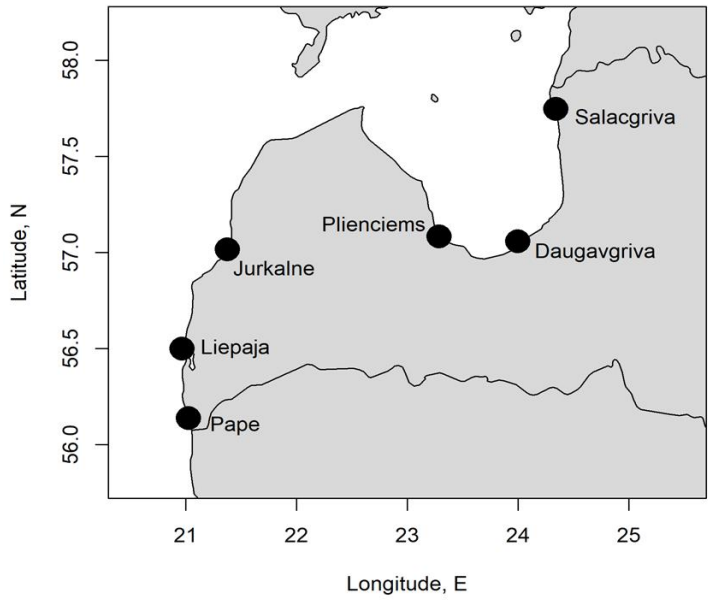



**Figure G.9.A.** Sampling places for the Latvian coastal fish monitoring in 2018. ● – sampling places.

3. For internationally coordinated surveys, describe the participating Member States/ vessels and the relevant international group in charge of planning the survey

This is not an internationally coordinated survey however, it is performed by methodology of the HELCOM and it is performed in other countries of the Baltic Sea.

4. Where applicable, describe the international task-sharing (physical and/or financial) and the cost-sharing agreement used

No cost sharing agreement is used.

5. Explain where thresholds apply

No thresholds were applied for this survey.

*(max. 450 words per survey)*

6. Graphical representation (map) showing the positions (locations) of the realized samples.

Member State shall provide maps presenting the spatial distribution of the main sampling types obtained during the survey.

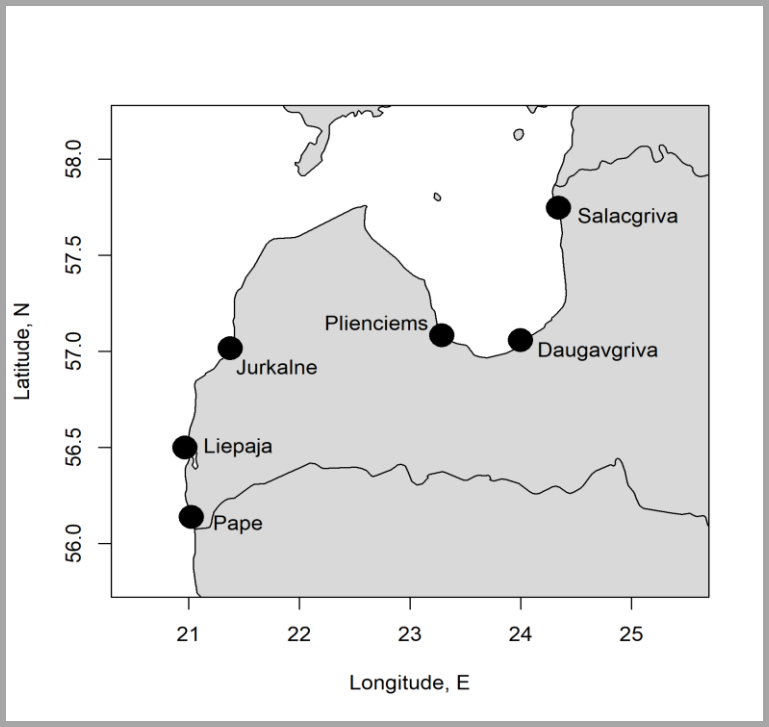



**Figure G.9.** Sampling places for the Latvian coastal fish monitoring in 2020. ● – sampling places.

7. For internationally coordinated surveys, provide a link to the latest meeting report of the coordination group.

Member State shall provide a hyperlink to the meeting report from the body coordinating the survey (ICES, MEDITS coordination group, MEDIAS coordination group etc.). For non-international coordinated surveys, Member State shall refer to any status report (e.g. Cruise report).

Information about survey is included in monthly report for Ministry of Agriculture based on National agreement as well as in annual scientific overview. More detailed information about Gulf of Riga Demersal Fish survey is included in institute annual report.

8. List the main use of the results of the survey (e.g. indices, abundance estimates, environmental indicators).

Member State shall specify in which context the results are used (on routine basis), both on an international as well as on a national context.

The objective of survey is to monitor changes in the fish communities in relation to the impact of eutrophication, habitat alteration, climate change, toxic substances, alien species and fishery. The results of the survey are used for the management of fishery in the Latvian coastal zone.

For data from Daugavgriva and Jurkalne the following HELCOM indicators are calculated:

Abundance of coastal fish key functional groups

Abundance of key coastal fish species

The calculated indices are included in HELCOM coastal fish core indicator database (COOL), http://bio.helcom.fi/coastalfish

9. Extended comments (Tables 1G and 1H)

If the Member State has extended AR Comments, these can be placed under this section. If this is the case, a reference to this text box should be provided in the corresponding tables.

*(max 450 words per survey)*

SECTION 2: FISHING ACTIVITY DATA

## Text Box 2A: Fishing activity variables data collection strategy

General comment: This box fulfills paragraph 4 of Chapter III of the multiannual Union programme and Article 2, Article 4 paragraph (2) point (b) and Article 5 paragraph (2) of the Decision (EU) 2016/1701. It is intended to describe the method used to derive estimates on representative samples where data are not to be recorded under Regulation (EU) No 1224/2009 or where data collected under Regulation (EU) No 1224/2009 are not at the right aggregation level for the intended scientific use.

General comment: This box is applicable to the Annual Report. This box should provide information on the implementation of the data collection of fishing activity variables of Member States.

1. Description of methodologies used to cross-validate the different sources of data.

The capacity, effort and landing data are collected under *Regulation (EU) No 1224/2009*.

The Capacity data are derived from the FVR (Fishing Vessel Register) which is the part of Latvian Ship Register integrated into the ICIS Information System and among other contain following information on technical parameters:

- Age of the vessel;
- Power of main engine;
- Total vessel length (LOA);
- Tonnage GT.

A small-scale fleet (attributed to the segment VL0010) included in the Fleet Register deal with two types of activity: commercial coastal zone fishery and recreational coastal zone fishery.

According to the Latvian legislation, a special coastal fishing permit (licence) should be received by the enterprise deal with commercial activities and fishing in coastal zone. The licence provides the permission for the fishing enterprises to fish, tranship and sell the catch. The information about the company, fishing licence, vessels, gears, landings and fishing days should be provided monthly in the coastal logbook as well as the information about each fishing operation should be reported. The commercial fishing companies obligated to use the vessels registered in the Fleet Register.

The main reason for the inclusion of recreational vessels to the Fleet Register is an obligation for the recreational fishermen to fill coastal logbooks in connection with obtaining special fishing permission (licence) for the "self-consumption fishery".

The "self-consumption fishery" licence has following limitations:

- The catch could not be sold;
- During the fishing operation is permitted to use only one type of fishing gear: hooks (HOK) or fixed gillnets (GNH) or fish nets (NET) or Eelpout trap nets (FYK);
- Cod volume is less than 10% from total catch.

Such type of permission define that the natural persons have to be registered in the Marine and Inland Waters Administration of the State Environmental Service as well as could use the vessel from the Fleet Register. The permission also obligate the recreational fishermen to fill monthly the coastal logbooks where information is reported about each fishing operation.

Is important to mention that the same small-scale vessels from the Fleet Register could be used for both activities - commercial and recreational. There were 14 such vessels reported in 2019. For the data transmission and analysis these vessels capacity data will be attributed to the commercial fishery data. The capacity data for vessels engaged in recreational fishing will not be transmitted into end user due to the ban on commercial activity for that type of fishery.

The vessels listed in Fleet Register but not reported the fishing operations in the logbooks during the reference year considered inactive.

The base for the calculation of the Efforts and Landings will be data from logbooks. All Latvian commercial fishermen including all vessels <10 m according to the Latvian legislation have to fill logbook for every fishing trip they make. The filled logbooks are stored in the ICIS information system and include all mandatory information from *Commission Delegated Decision 2019/910* Table 4 (Fishing Activity Variables). The ICIS information system and coastal logbooks contain also data about recreational fishery performed with the permission (licence) for the "self-consumption fishery". These data are collected according to the internal Latvian legislation. Only information on fish species being obligatory under *Commission Delegated Decision 2019/910* for recreational fisheries (Table 3) will be provided to end user and all information listed in Table 4 for the commercial fishery.

The additional data collection source (questionnaire) is used for the collection of the price per commercial species and Days at sea. The data about prices are collected from Sale notes and state questionnaire form "1-Fishery". The delivered price data are analysed and the most reliable prices used in the calculation of average price per species. The Days at sea collected by questionnaire form "1-Fishery are used for data cross-validating with the data received from logbooks.

2. Description of methodologies used to estimate the value of landings.

For the calculation of the Value of landings per species, the average prices delivered from Sale notes and questionnaires will be multiplied with the landed weight delivered from logbooks.

3. Description of methodologies used to estimate the average price (it is recommended to use weighted averages, trip by trip)

The data about price are collected from Sale notes and state questionnaire form "1-fishery". The delivered price data are analysed by experts and the most reliable prices are used for the calculation of average price.

4. Description of methodologies used to plan collection of the complementary data (sample plan methodology, type of data collected, frequency of collection etc)

The data from state statistical form/questionnaire "1-Fisheries" is received from Central Statistical Bureau of Latvia (CSB). The primary information about prices and landed weight are provided annually from owners of fishing firms by species. The information about Days at sea grouped by fleet segments received annually from the same questionnaire. The data covers all members of the population involved in the economic activity. Despite the fact that price per species and Days at sea data collection is based on the questionnaire form, participation of the respondents is obligatory according to the Latvian legislation. All collected data are stored in the CSB database. Type of data collection for Latvian fishing fleet is "Census". The data collection Response rate is 100%.

*(max 900 words per Region)*

5. Deviations from Work Plan methodology used to cross-validate the different sources of data

No deviations from Work Plan.

No actions to avoid deviations are needed.

6. Deviations from Work Plan methodology used to estimate the value of landings.

No deviations from Work Plan.

No actions to avoid deviations are needed.

7. Deviations from Work Plan methodology used to estimate the average price.

No deviations from Work Plan.

No actions to avoid deviations are needed.

8. Deviations from Work Plan methodology used to plan collection of the complementary data

No deviations from Work Plan.

No actions to avoid deviations are needed.

*(max 900 words per Region)*

## Text Box 3A: Population segments for collection of economic and social data for fisheries

General comment: This box fulfils paragraph 5 points (a) and (b) of Chapter III of the multiannual Union programme and Article 2, Article 4 paragraphs (1), (2) and (5) and Article 5 paragraph (2) of the Decision (EU) 2016/1701. It is intended to specify data to be collected under Tables 5(A) and 6 of the multiannual Union programme.

General comment: This box is applicable to the Annual Report. This box should provide information on the implementation of the fleet socio-economic data collection of Member States.

1. Description of methodologies used to choose the different sources of data

The economic data collection according to *Commission Delegated Decision 2019/910* table 5A is implemented for all fishing companies involved in commercial fishery. The economic variables are collected by the Central Statistical Bureau of Latvia (CSB) by state statistical form/questionnaire "1-Fisheries" where economic information is aggregated by fleet segments. Primary economic information will be received annually from owners of fishing firms by the state statistical form/questionnaire "1-Fisheries". The collected economic information is based on the annual balance sheet.

The data about prices per commercial species are collected from two data sources: Sale notes and state questionnaire form "1-Fishery". The collected prices data are analysed and the most reliable prices used in the calculation of average price. The Days at sea are collected additionally by questionnaire form "1-Fishery. The received data are used for data cross checks with the data received from logbooks.

It is planned to commit the social data collection started from autumn on 2020. The first social data for the commercial fishery could be received in April 2021 and the data will be collected for 2020. The detailed information about social data collection provided in the Text Box "Pilot Study 3".

The economic and social data for recreational fishery are not collected but some parameters such as value of landing, fuel costs, repair and maintenance costs could be calculated based on collected economic data for the commercial enterprises. The share of the Baltic Sea recreational fishery value and weight were 0.4% and 0.1% respectively in the total Latvian landings value in weight in 2019. These values are negligible and cannot influent to the economic situation in Latvia.

2. Description of methodologies used to choose the different types of data collection

Economic data collection covers all members of the population involved in the commercial activity. Despite the fact that economic data collection is based on the questionnaire form, participation of the responders is obligatory according to the Latvian legislation. All economic data are stored in the CSB database. Type of data collection for Latvian fishing fleet is "Census". The Response rate for the collected data is 100 %.

3. Description of methodologies used to choose sampling frame and allocation scheme

The Target population is represented by number of vessels included in the Fleet Register for each fleet segment at the 31st of December of the sample year.

4. Description of methodologies used for estimation procedures

For the calculation of the Value of landings per species as well as Gross value of landings, the average prices will be multiplied with landed weight.

For the calculation of the Value of unpaid labour data about average personal costs in the segment and number of unpaid persons for each segment will be used.

The data for Consumption on fixed capital and Value of physical capital will be collected by questionnaires and also derived from PIM. The variables: historical value, annual depreciation costs and vessel current value are included in the annual questionnaire. The information provided in questionnaires is based on the bookkeeping information. The estimates for the calculation of current vessel value based on the information available in the company's documentation. The values from the survey could be used for the cross checks with the results received by the Perpetual Inventory Method (PIM). The formulas for the PCU (Price per capacity unit) calculation are taken from the COUNCIL REGULATION (EC) No 2792/1999, where the formulas for

compensation for the vessel decommissioning are provided. The formulas determine the vessel current value which theoretically is higher than 2nd hand market price due to the compensation for the excluding vessels from the Fleet Fishing Register should covered the potential price for the vessel in the market. Liner depreciated scheme could be used due to the long service life for the vessels equipment and average vessels age 30 years. The applied shares in total investment and depreciation rates are recommended by OECD. Share in total investment: Hull – 46%, Engine – 25%, Electronics -2%, Other equipment 27%. Linear depreciation rates: Hull – 4%, Engine – 10%, Electronics – 20%, Other equipment – 16%, Rest value hull – 2.5%. Age schedules: Hull – 25, Engine – 10, Electronics -5, Other equipment 7.

The Financial position will be calculated based on the collected data about Gross debts and total company assets attributed to the fishery.

The Energy consumption calculation will be based on collected average price for fuel and data collected for Energy costs.

The FTE national will be calculated based on the collected data about total employment and days at sea as it was recommended by Study No FISH/2005/14 Calculation of labour including FTE in fisheries.

The data for quota or other fishing rights has a zero value due to the absence of fishing rights market in Latvia.

The definitions and methodology for other variables will be applied according to the definitions provided by the document from PGECON 2019 report "Definition and methodologies for the socio-economic data described in EU-MAP".

5. Description of methodologies used on data quality

The economic data collection will be implemented for all members of the population and for each fishing company involved in commercial fishery. The Response rate and Achievement sample rate for economic data collection is planned to be 100%. The coastal fishery (fleet segment VL0010) has a separation for the commercial and recreational fishery. The vessels for the both types of coastal activities are included in the Fleet Register. The economic data collection will not be implemented for the recreational fishery. However, for the recreational fishery biological data will be collected according to the *Commission Delegated Decision 2019/910* table 3 (Species to be collected for recreational fisheries).

The following quality indicators will be calculated for the data collection type "Census":

- Accuracy indicator for type of error Bias:
  - Coverage rate;
  - Response rate;
  - Achievement sample rate;

- Accuracy indicator for type of error Variability (only in cases when Response rate is less than 70%):
  - Coefficient of Variation.

In order to protect data confidentiality it is planned not to submit to end user the following collected data sets:

- for inactive vessels the collected data for the Consumption on fixed capital and Value of physical capital, if the number of vessels is less than 10 vessels in segment;
- the collected economic data for less than 10 long distance sea vessels operated in Atlantic region in each segment separated by fishing area;
- the collected economic data for less than 5 companies with the long distance sea vessels operated in Atlantic region in each segment separated by fishing area. (The vessels operating in Atlantic region cannot be clustered with the Baltic Sea fleet due to significant differences in type of fishing activities and operating areas.).

*(max 900 words per Region)*

6. Deviations from Work Plan methodology for selection of data source

No deviations from Work Plan.

No actions to avoid deviations are needed.

7. Deviations from Work Plan methodology to choose type of data collection

No deviations from Work Plan.

No actions to avoid deviations are needed.

8. Deviations from Work Plan methodology regarding sampling frame and allocation scheme

No deviations from Work Plan.

No actions to avoid deviations are needed.

9. Deviations from Work Plan methodology used for estimation procedures

No deviations from Work Plan.

No actions to avoid deviations are needed.

10. Quality assurance

10.1 Sound methodology

The CSB operates in compliance with principles stipulated by the European Statistics Code of Practice (ESCP)* that comprises the independence standard of the European Statistical System, provides further guarantee for good operation of ESS and ensuring reliable statistics. The process of the CSB's statistical work takes place also according to the basic principles of the United Nations Official Statistics. In the European Statistical System the quality of statistical data is assessed according to six quality criteria: relevance, accuracy, timeliness and punctuality, accessibility and clarity, comparability, coherence. These criteria are included also among the ESCP principles.

The variables were collected in the frame of the Commission Implementing Decision 2019/909 and Commission Delegated Decision 2019/910 according to the methodologies, guidelines and best practices agreed by PGECON, STECF EWG expert groups. The definitions and methodology for the variables was applied according to the definitions provided by the documents "Definition of socio-economic variables described in EU MAP" and "Methodologies for the socio-economic data described in EU MAP". The applied methodologies are publicly available at the web-page:
https://datacollection.jrc.ec.europa.eu/guidelines/-/document_library_display/RLr2wPw5SsY4/view/994708?_110_INSTANCE_RLr2wPw5SsY4_redirect=https%3A%2F%2Fdatacollection.jrc.ec.europa.eu%2Fguidelines%3Fp_p_id%3D110_INSTANCE_RLr2wPw5SsY4%26p_p_lifecycle%3D0%26p_p_state%3Dnormal%26p_p_mode%3Dview%26p_p_col_id%3Dcolumn-2%26p_p_col_count%3D1

* Brussels, 25.05.2005 COM (2005) 217 final, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL on the independence, integrity and accountability of the national and Community statistical authorities, RECOMMENDATION OF THE COMMSISION on the independence, integrity and accountability of the national and Community statistical authorities.

10.2. Accuracy and reliability

The methodologies suggested by SGECA 09-02 (Barcelona) have been used in terms of quality indicators. Response rate and Achieved sample rate are provided in Table 3A. The quality indicators were calculated for the data collection type "Census".

The European and other international standards, guidelines and the best practice are applied in collection, organization, processing and dissemination of the official statistics. The reliability of the statistics is enhanced by good administration and efficiency. In this relation sound methodology, appropriate statistical procedures, non-excessive burden on respondents and cost-effectiveness are significant factors.

The approach of good administration usually comprises such elements as: accountability, transparency, involvement, equality, justice, capability and competence, responsiveness to people needs.

One of the CSB's activities is to introduce the basics of the Total Quality Management System (TQMS) – to identify statistical and organizational processes and develop their descriptions in compliance with requirements of the quality management system. The fundamental idea of the quality management system is to promote complete satisfaction of wishes and needs of data users to a maximum extent by continuous improvement of the statistical institution's activity. Introduction of TQMS was started in 2006 within the framework of twinning project "Introduction of TQMS in the CSB" from which resulted the following:

The structure of the CSB's quality report used for describing the statistical surveys of the CSB has been developed;
The survey of statistical data users on the quality of the CSB's data has been conducted;

The main processes have been defined: fundamental processes, as basic activity of the institution, processes of statistical information production, client service and implementation of new development projects; auxiliary processes as management and support processes that exist only for supporting the institution's basic activity. The result of these activities does not reach data users (for example, accountancy, legal services, provision of the IT infrastructure, repairs and maintenance etc.
Survey on the satisfaction of statistical data users has been conducted;
Quality Guidelines of the CSB have been developed.

10.3. Accessibility and Clarity

Are methodological documents publicly available? Yes

The documents "Quality policy and objectives of the Central Statistical Bureau" and "Quality guidelines" are publicity available.

Are data stored in databases? Yes

A technical specification for the TQMS documentary basis has been elaborated and the data basis was generated within the framework of service contract "Documentation Storage of the Total Quality Management System" (project No. 2005/017-495-04-02 "Administrative Capacity of the Central Statistical Bureau of Latvia").

Where can methodological and other documentation be found?

The documents "Quality policy and objectives of the Central Statistical Bureau" and "Quality guidelines" can be found at the web-page:
https://www.csb.gov.lv/en/documents/official-statistics-system/quality-framework/documents
and
https://www.csb.gov.lv/en/documents/official-statistics-system/quality-framework/compliance

(max 1000 words)

SECTION 3: ECONOMIC AND SOCIAL DATA

## Pilot Study 3: Data on employment by education level and nationality

General comment: This box fulfills paragraph 5 point (b) and paragraph 6 point (b) of Chapter III of the multiannual Union programme and Article 2 and Article 3 paragraph (3) point (c) of the Decision (EU) 2016/1701.It is intended to specify data to be collected under Table 6 of the multiannual Union programme.

General comment: This box is applicable to the Annual Report. This box is intended to provide information on the results obtained from the implementation of the pilot study (including deviations from planned and justifications as to why if this was not the case).

1. Aim of pilot study

The social data collection based on pilot study results is incorporated to the three-annual data collection. The pilot study results provide reliable data on employment variability. Furthermore the received social data could be included into subsequent forecast for the development of Latvian fishing fleet. The data will be collected according to the Commission Delegated Decision Table 6 and Table 10 where the following variables for the three sectors (fisheries, aquaculture, fish processing) should be collected:

- employment by gender;
- FTE by gender;
- unpaid labour by gender;
- employment by age;
- employment by education level;
- employment by nationality;
- employment by employment status;
- FTE National.

2. Duration of pilot study

The social parameters included in the planned survey will be in line with defined by PGECON 2017 and PGECON 2019 reports. The survey itself will be performed by a firm that is specialised on running social inquiries. The firm will be selected by procurement procedure that will be organised in the first half of the winter of 2021. The survey itself will be started in winter of 2021 and will last till summer 2021. The results of the survey will be analysed from June to September 2021.

3. Methodology and expected outcomes of pilot study

The social data collection will be based on Probability sample survey. The survey will be implemented based on questionnaires forms. The questionnaires will be distributed between fishing companies. The coverage rate for the survey is planned around 20% of companies in each sector (fisheries, aquaculture, fish processing). The social parameters will be collected for 2020.

*(max 900 words)*

4. Achievement of the original expected outcomes of pilot study and justification if this was not the case.

The social data collection was incorporated to the regular data collection with the three-annual frequency. The data collection for 2020 was started in January 2021 and the results will be received by the end of June 2021.

5. Incorporation of results from pilot study into regular sampling by the Member State.

The social data collection was incorporated to the regular data collection with the three-annual frequency.

(max 900 words)

## Text Box 3B: Population segments for collection of economic and social data for aquaculture

General comment: This box fulfills paragraph 6 points (a) and (b) of Chapter III of the multiannual Union programme and Article 2, Article 4 paragraphs (1) and (5) and Article 5 paragraph (2) of the Decision (EU) 2016/1701.It is intended to specify data to be collected under Tables 6 and 7 of the multiannual Union programme.

General comment: This box is applicable to the Annual Report. This box should provide information on the implementation of the socio-economic data collection for aquaculture of Member States.

1. Description of methodologies used to choose the different sources of data

Data on aquaculture in Latvia could be obtained only from economically active enterprises which farm market size fish for sale or produce young fish for restocking and on growing. There is only freshwater aquaculture in Latvia and there are no net-cage farms in sea and freshwater sites.

The main activities of the Latvian aquaculture enterprises are as follows:

- Fish cultivation in freshwater earth ponds and land based farms in special tanks and growing up for market sale;
- Short- term fish cultivation in freshwater ponds for commercial angling;
- Fish cultivation in household ponds for self-consumption or hobby angling;
- Artificial breeding of young fish for restocking in coastal seawater and inland freshwater. The government program is implemented and one government institution is involved in the restocking process.

The total volume and value of freshwater aquaculture production in Latvia were less than 1% between 2015 and 2018 and were around 0.07% and 0.12% respectively on average from the total available Union production reported to EUROSTAT (according to the Regulation (EC) No 762/2008). Although the freshwater aquaculture data collection is not mandatory (according to the *Commission Delegated Decision 2019/910* Chapter III Data Requirements section (6) some economic variables will be collected. The list of variables is presented in Table 3B Population segments. The economic data collection will be carried out for the basic information which could provide an overview of the aquaculture sector, as well as serve as a basis for the calculation of the sector's economic efficiency. The economic variables are collected by the Central Statistical Bureau of Latvia (CSB) by state statistical form/questionnaire "1-Aquaculture". Apart from economic data the questionnaire includes information on production by species in tonnes and value, total area of fish ponds, volume of rearing tanks and number of employment.

The social data in aquaculture will be collected for 2020. The detailed description about the social data collection provided in Text Box "Pilot Study 3".

2. Description of methodologies used to choose the different types of data collection

Primary economic information from state statistical form/questionnaire "1-Aquaculture" is received annually from owners of fishing firms. Type of data collection for Latvian aquaculture is "Census". All received economic data are stored in the CSB database. The Response rate for the collected data is 100 %.

3. Description of methodologies used to choose sampling frame and allocation scheme

The questionnaires should be filled in by each company involved in commercial activity during the sampling year. Due to the small number of aquaculture enterprises, collected data could be presented only as a segment "Other methods" and a species as an "Other freshwater fish". The data cannot be disaggregated by categories by the number of persons employed.

4. Description of methodologies used for estimation procedures

For the calculation of the Value of unpaid labour will be used data about average personal costs and number of unpaid people.

The definitions and methodology for other variables will be applied according to the definitions provided by the document from PGECON 2019 report "Definition and methodologies for the socio-economic data described in EU-MAP".

5. Description of methodologies used on data quality

The following quality indicators will be calculated for the data collection type "Census":

- Accuracy indicator for type of error Bias:
  - Coverage rate;
  - Response rate;
  - Achievement sample rate;

- Accuracy indicator for type of error Variability (only in cases when Response rate is less than 70%):
  - Coefficient of Variation.

*(max 1000 words)*

6. Deviations from Work Plan methodology for selection of data source

No deviations from Work Plan.

No actions to avoid deviations are needed.

7. Deviations from Work Plan methodology to choose type of data collection

No deviations from Work Plan.

No actions to avoid deviations are needed.

8. Deviations from Work Plan methodology regarding sampling frame and allocation scheme

No deviations from Work Plan.

No actions to avoid deviations are needed.

9. Deviations from Work Plan methodology used for estimation procedures

No deviations from Work Plan.

No actions to avoid deviations are needed.

10. Quality assurance

10.1 Sound methodology

The CSB operates in compliance with principles stipulated by the European Statistics Code of Practice (ESCP)* that comprises the independence standard of the European Statistical System, provides further guarantee for good operation of ESS and ensuring reliable statistics. The process of the CSB's statistical work takes place also according to the basic principles of the United Nations Official Statistics. In the European Statistical System the quality of statistical data is assessed according to six quality criteria: relevance, accuracy, timeliness and punctuality, accessibility and clarity, comparability, coherence. These criteria are included also among the ESCP principles.

The variables were collected in the frame of the Commission Implementing Decision 2019/909 and Commission Delegated Decision 2019/910 according to the methodologies, guidelines and best practices agreed by PGECON, STECF EWG expert groups. The definitions and methodology for the variables was applied according to the definitions provided by the documents "Definition of socio-economic variables described in EU MAP" and "Methodologies for the socio-economic data described in EU MAP". The applied methodologies are publicly available at the web-page:

https://datacollection.jrc.ec.europa.eu/guidelines/-/document_library_display/RLr2wPw5SsY4/view/994708?_110_INSTANCE_RLr2wPw5SsY4_redirect=https%3A%2F%2Fdatacollection.jrc.ec.europa.eu%2Fguidelines%3Fp_p_id%3D110_INSTANCE_RLr2wPw5SsY4%26p_p_lifecycle%3D0%26p_p_state%3Dnormal%26p_p_mode%3Dview%26p_p_col_id%3Dcolumn-2%26p_p_col_count%3D1

* Brussels, 25.05.2005 COM (2005) 217 final, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL on the independence, integrity and accountability of the national and Community statistical

authorities, RECOMMENDATION OF THE COMMSISION on the independence, integrity and accountability of the national and Community statistical authorities.

10.2. Accuracy and reliability

The methodologies suggested by SGECA 09-02 (Barcelona) have been used in terms of quality indicators. Response rate and Achieved sample rate are provided in Table 3B. The quality indicators were calculated for the data collection type "Census".

The European and other international standards, guidelines and the best practice are applied in collection, organization, processing and dissemination of the official statistics. The reliability of the statistics is enhanced by good administration and efficiency. In this relation sound methodology, appropriate statistical procedures, non-excessive burden on respondents and cost-effectiveness are significant factors.

The approach of good administration usually comprises such elements as: accountability, transparency, involvement, equality, justice, capability and competence, responsiveness to people needs.

One of the CSB's activities is to introduce the basics of the Total Quality Management System (TQMS) – to identify statistical and organizational processes and develop their descriptions in compliance with requirements of the quality management system. The fundamental idea of the quality management system is to promote complete satisfaction of wishes and needs of data users to a maximum extent by continuous improvement of the statistical institution's activity. Introduction of TQMS was started in 2006 within the framework of twinning project "Introduction of TQMS in the CSB" from which resulted the following:

The structure of the CSB's quality report used for describing the statistical surveys of the CSB has been developed;
The survey of statistical data users on the quality of the CSB's data has been conducted;
The main processes have been defined: fundamental processes, as basic activity of the institution, processes of statistical information production, client service and implementation of new development projects; auxiliary processes as management and support processes that exist only for supporting the institution's basic activity. The result of these activities does not reach data users (for example, accountancy, legal services, provision of the IT infrastructure, repairs and maintenance etc.
Survey on the satisfaction of statistical data users has been conducted;
Quality Guidelines of the CSB have been developed.

10.3. Accessibility and Clarity

Are methodological documents publicly available? Yes

The documents "Quality policy and objectives of the Central Statistical Bureau" and "Quality guidelines" are publicity available.

Are data stored in databases? Yes

A technical specification for the TQMS documentary basis has been elaborated and the data basis was generated within the framework of service contract "Documentation Storage of the Total Quality Management System" (project No. 2005/017-495-04-02 "Administrative Capacity of the Central Statistical Bureau of Latvia").

Where can methodological and other documentation be found?

The documents "Quality policy and objectives of the Central Statistical Bureau" and "Quality guidelines" can be found at the web-page: https://www.csb.gov.lv/en/documents/official-statistics-system/quality-framework/documents and https://www.csb.gov.lv/en/documents/official-statistics-system/quality-framework/compliance

(max 1000 words)

SECTION 3: ECONOMIC AND SOCIAL DATA

## Pilot Study 4: Environmental data on aquaculture

| |
|---|
| General comment: This box fulfills paragraph 6 point (c) of Chapter III of the multiannual Union programme and Article 2 and Article 4 paragraph (3) point (d) of the Decision (EU) 2016/1701. It is intended to specify data to be collected under Table 8 of the multiannual Union programme. |
| General comment: This box is applicable to the Annual Report. This box is intended to provide information on the results obtained from the implementation of the pilot study (including deviations from planned and justifications as to why if this was not the case). |
| 1. Aim of pilot study<br>The *Commission Delegated Decision 2019/910* Chapter III Data Requirements section (6) defines that social, economic and environmental data collection is optional for freshwater aquaculture. As there is no aquaculture in sea or in coastal waters and the freshwater production is on the low level in Latvia it is not planned to collect environmental data in aquaculture sector. The pilot study is not planned.<br>2. Duration of pilot study<br>Only freshwater aquaculture. The pilot study is not planned.<br>3. Methodology and expected outcomes of pilot study<br>Only freshwater aquaculture. The pilot study is not planned.<br>(max 900 words) |
| 4. Achievement of the original expected outcomes of pilot study and justification if this was not the case.<br>Not applicable.<br>5. Incorporation of results from pilot study into regular sampling by the Member State.<br>Not applicable.<br>(max 900 words) |

## Text Box 3C: Population segments for collection of economic and social data for the processing industry

General comment: This box fulfils footnote 6 of paragraph 1.1(d) of Chapter III of the multiannual Union programme, Article 2, Article 4 paragraphs (1) and (5) and Article 5 paragraph (2) of Decision (EU) 2016/1701. It is intended to specify data to be collected under Table 11 of the multiannual Union programme.

General comment: This box is applicable to the Annual Report. This box should provide information on the implementation of the socio-economic data collection for aquaculture of Member States.

1. Description of methodologies used to choose the different sources of data

According to the *Commission Delegated Decision 2019/910* Table 10 the processing industry data collection could be carried out on a voluntary basis. However, the data concerning processing industry in Latvia are collected for the EUROSTAT database. The same data could be provided also for Data collection needs. The data collection for the fish processing industry is based on questionnaires/statistical forms and State Revenue Service information. The data is provided to Central Statistical Bureau of Latvia by fish processing enterprises in accordance with their bookkeeping information.

The social data in fish processing will be collected for 2020. The detailed description about the social data collection provided in Text Box "Pilot Study 3".

2. Description of methodologies used to choose the different types of data collection

All economic active enterprises having the EUROSTAT classification according to definition NACE Code 10.20. 'Products' "Processing and preserving of fish, crustaceans and mollusks" are involved in the surveys. The participation of the responders is obligatory according to the Latvian national legislation. All economic data are stored in the CSB database. Type of data collection is "Census". The Response rate for the collected data is 100%.

3. Description of methodologies used to choose sampling frame and allocation scheme

The questionnaires should be filled in by each company involved in commercial activity during the sampling year.

4. Description of methodologies used for estimation procedures

For the calculation of the Value of unpaid labour data about average personal costs and number of unpaid persons will be used. The definitions and methodology for other variables will be applied according to the definitions provided by the document from PGECON 2019 report "Definition and methodologies for the socio-economic data described in EU-MAP".

5. Description of methodologies used on data quality

The following quality indicators will be calculated for the data collection type "Census":

- Accuracy indicator for type of error Bias:
  - Coverage rate;
  - Response rate;
  - Achievement sample rate;

- Accuracy indicator for type of error Variability (only in cases when Response rate is less than 70%):
  - Coefficient of Variation.

*(max 1000 words)*

6. Deviations from Work Plan methodology for selection of data source

No deviations from Work Plan.

No actions to avoid deviations are needed.

7. Deviations from Work Plan methodology to choose type of data collection

No deviations from Work Plan.

No actions to avoid deviations are needed.

8. Deviations from Work Plan methodology regarding sampling frame and allocation scheme

No deviations from Work Plan.

No actions to avoid deviations are needed.

9. Deviations from Work Plan methodology used for estimation procedures

No deviations from Work Plan.

No actions to avoid deviations are needed.

10. Quality assurance

10.1 Sound methodology

The CSB operates in compliance with principles stipulated by the European Statistics Code of Practice (ESCP)* that comprises the independence standard of the European Statistical System, provides further guarantee for good operation of ESS and ensuring reliable statistics. The process of the CSB's statistical work takes place also according to the basic principles of the United Nations Official Statistics. In the European Statistical System the quality of statistical data is assessed according to six quality criteria: relevance, accuracy, timeliness and punctuality, accessibility and clarity, comparability, coherence. These criteria are included also among the ESCP principles.

The variables were collected in the frame of the Commission Implementing Decision 2019/909 and Commission Delegated Decision 2019/910 according to the methodologies, guidelines and best practices agreed by PGECON, STECF EWG expert groups. The definitions and methodology for the variables was applied according to the definitions provided by the documents "Definition of socio-economic variables described in EU MAP" and "Methodologies for the socio-economic data described in EU MAP". The applied methodologies are publicly available at the web-page:

https://datacollection.jrc.ec.europa.eu/guidelines/-/document_library_display/RLr2wPw5SsY4/view/994708?_110_INSTANCE_RLr2wPw5SsY4_redirect=https%3A%2F%2Fdatacollection.jrc.ec.europa.eu%2Fguidelines%3Fp_p_id%3D110_INSTANCE_RLr2wPw5SsY4%26p_p_lifecycle%3D0%26p_p_state%3Dnormal%26p_p_mode%3Dview%26p_p_col_id%3Dcolumn-2%26p_p_col_count%3D1

* Brussels, 25.05.2005 COM (2005) 217 final, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL on the independence, integrity and accountability of the national and Community statistical authorities, RECOMMENDATION OF THE COMMSISION on the independence, integrity and accountability of the national and Community statistical authorities.

10.2. Accuracy and reliability

The methodologies suggested by SGECA 09-02 (Barcelona) have been used in terms of quality indicators. Response rate and Achieved sample rate are provided in Table 3C. The quality indicators were calculated for the data collection type "Census".

The European and other international standards, guidelines and the best practice are applied in collection, organization, processing and dissemination of the official statistics. The reliability of the statistics is enhanced by good administration and efficiency. In this relation sound methodology, appropriate statistical procedures, non-excessive burden on respondents and cost-effectiveness are significant factors.

The approach of good administration usually comprises such elements as: accountability, transparency, involvement, equality, justice, capability and competence, responsiveness to people needs.

One of the CSB's activities is to introduce the basics of the Total Quality Management System (TQMS) – to identify statistical and organizational processes and develop their descriptions in compliance with requirements of the quality management system. The fundamental idea of the quality management system is to promote complete satisfaction of wishes and needs of data users to a maximum extent by continuous improvement of the statistical institution's activity. Introduction of TQMS was started in 2006 within the framework of twinning project "Introduction of TQMS in the CSB" from which resulted the following:

The structure of the CSB's quality report used for describing the statistical surveys of the CSB has been developed;

The survey of statistical data users on the quality of the CSB's data has been conducted;

The main processes have been defined: fundamental processes as basic activity of the institution, processes of statistical information production, client service and implementation of new development projects; auxiliary processes as management and support processes that exist only for supporting the institution's basic activity. The result of these activities does not reach data users (for example, accountancy, legal services, provision of the IT infrastructure, repairs and maintenance etc.
Survey on the satisfaction of statistical data users has been conducted;
Quality Guidelines of the CSB have been developed.

10.3. Accessibility and Clarity

Are methodological documents publicly available? Yes

The documents "Quality policy and objectives of the Central Statistical Bureau" and "Quality guidelines" are publicity available.

Are data stored in databases? Yes

A technical specification for the TQMS documentary basis has been elaborated and the data basis was generated within the framework of service contract "Documentation Storage of the Total Quality Management System" (project No. 2005/017-495-04-02 "Administrative Capacity of the Central Statistical Bureau of Latvia").

Where can methodological and other documentation be found?

The documents "Quality policy and objectives of the Central Statistical Bureau" and "Quality guidelines" can be found at the web-page:

https://www.csb.gov.lv/en/documents/official-statistics-system/quality-framework/documents

and

https://www.csb.gov.lv/en/documents/official-statistics-system/quality-framework/compliance

(max 1000 words)

SECTION 4: SAMPLING STRATEGY FOR BIOLOGICAL DATA FROM COMMERCIAL FISHERIES

## Text Box 4A: Sampling plan description for biological data

General comment: This box fulfills Article 3, Article 4 paragraph (4) and Article 8 of the Decision (EU) 2016/1701 and forms the basis for the fulfilment of paragraph 2 point (a)(i) of Chapter III of the multiannual Union programme. This Table refers to data to be collected under Tables 1(A), 1(B) and 1(C) of the multiannual Union programme.

General comment: This box is applicable to the Annual Report. This box should provide information on the deviations from the planned sampling of Member States.

1. Description of the sampling plan according to Article 5 paragraph (3) of the Decision (EU) 2016/1701

**Baltic Sea**

Data will be collected for all fleet segments in the Baltic Sea. Collected material contains data from open sea vessels and coastal area boats (vessels < 12 m). Primary sampling unit for all segments is vessel trip. The sampling effort will be allocated taking into account the recommendation that metier should be sampled monthly if the fishing trips are less than two weeks long. The duration of fishing trips of all metiers in the Baltic is less than two weeks long therefore they all will be sampled on monthly basis. However, e.g. in herring trapnet fishery, the samples are collected more often because these data are used as tuning fleet in the assessment.

In 2018, 50 trawlers and 2 gillnetters were fishing in the open part of the Baltic Sea. Trawlers belong to two segments: 12-< 18 m operating in the Gulf of Riga and 24-<40m operating in the Baltic Sea and the Gulf of Riga. The most numerous segment is the small vessels with length <12 m with polyvalent passive gears, operating in the coastal zone.

Information for each year about open sea vessels will be obtained from Fisheries Department in Ministry of Agriculture. In the end of each year, the Department establishes a list for the next year with fishing vessels which have the right to carry out commercial fishing in the Baltic Sea and the Gulf of Riga outside the coastal waters. Information in this list is split by species and fishing areas for each individual vessel.

Using information from this list and logbook data from last year three separate vessel lists will be created:

- List with ships that can perform pelagic fishery in the Baltic Sea;
- List with ships that can perform demersal fishery in the Baltic Sea;
- List with ships that can perform pelagic fishery in the Gulf of Riga.

Part of the vessels depending from the gear used and fishing area can be in different lists. For these three kinds of fisheries probability sample survey, in which data are collected from randomly selected units of a population, will be used. Excel function Ran between will be used for random selecting of ships from the list.

Random ship selection from the corresponding list will be used for pelagic and demersal fishery in the open sea. Vessel selecting protocol should note the following information:

- The name of selected vessel;
- Type of fishing / segment;
- Is able to enter into contact with the ship's representative - (negotiation date, time, contact person, phone);
- Does the ship is available for data collection on the next voyage (yes / no, if "no" then the reason why it is not possible);
- Does the ship is suitable for the observer to work (yes / no);
- Do contact with a representative of the fishing vessel is successful (yes / no);
- Has the journey taken place on the selected ship (yes / no).

If is not possible to carry out the planned trip, the selection process is repeated and next ship from the list is selected.

Biological data collection from the pelagic fishery in the Gulf of Riga will be performed using random draw from vessels and the samples will be collected from the selected vessels by observers on-board or in the harbours.

In the coastal (small scale) fisheries non-probability sample survey, in which data are collected from non-randomly selected units of a population will be used. In the coastal fishery we will conclude contracts with several fishermen for the self-sampling and collection of biological samples. These fishermen will evenly cover the coastal area. The sampling will include also separate on-board visits to fisherman and comparison with the self-sampling data.

Biological information length, age, weigh, sex ratio and sexual maturity will be collected for 10 species: *Anguilla anguilla, Clupea harengus, Gadus morhua, Perca fluviatilis, Platichtys flesus, Psetta maxima, Salmo salar, Salmo trutta, Sander lucioperca and Sprattus sprattus*. Problems with maturity determination for *Salmo salar, Salmo trutta, Sander lucioperca* can be in the coastal fishery. Fishermen's sell fishes ungutted. Maturity stage can be determined by season. Target species in the pelagic fishery in the Gulf of Riga is *Clupea harengus*. Target species in the pelagic fishery in the Baltic Sea are *Sprattus sprattus and Clupea harengus*. Target species in the demersal fishery in the Baltic Sea are *Gadus morhua and Platichtys flesus*. Target species in the coastal fishery are all selected species for biological data collection except *Sprattus sprattus*.

During the on-board sampling comprehensive sampling of all species will be performed. It should be highlighted that in the Baltic Sea most of the metier perform rather clean fishery and the by-catch of non-target species is low or could be absent at all. The on-board sampling will be used for demersal fishery where the discard level for flounder should be determined. In metiers where discards are low on-board sampling or sampling in harbours will be applied except trawl fishery targeting *Sprattus sprattus* where additionally on-board sampling will be performed to estimate the by-catch of herring. During the on-board sampling data are collected from each fishery act.

Quality of obtained biological and length data are accessed by calculating precision for each species, quarter, gear and length/sex/age class using bootstrap method to see if the collected sample size is sufficient to achieve precision of 5% or 20%.

**Eastern Arctic**

There is only one Latvian vessel fishing in the Eastern Arctic. The fishing quota acquired in exchange between NAFO and NEAFC. The vessel is targeting redfish (S. mentella) an Atlantic cod (Gadus morhua) with pelagic trawl. No sampling is planned due to unpredictable timing and geographical scope of fishing trips. It is planned to find solution by signing bi or multilateral agreement with other countries which fleet is operating in the same area.

**Other regions (CECAF area Central East Atlantic)**

Only three Latvian vessels were fishing in this area in period 2016-2018. At the end of 2018 one vessel was sold and during 2019 only two vessels are operating in CECAF area. Both vessels are fishing with pelagic trawl and targeting assemblage of small pelagic fishes: Trachurus spp., Scomber spp., Sardina pilchardus and Sardinella maderensis. The discard level is low. Starting from 2012 the sampling of pelagic fisheries is performed on the basis of multi-lateral agreement between Germany, Latvia, Lithuania, the Netherlands and Poland by observers. The sampling results are presented in the Annual report of the Poland.

*(max 900 words per region)*

Deviation from the sampling plan according to Article 5 paragraph (3) of the Decision (EU) 2016/1701:

2. Deviations from the Work Plan

Baltic Sea

Planned sampling level for sampled trips were not reached for strata OSF DEM-1 (Baltic Sea demersal trawlers) due to direct cod fishery ban and low fishermen interest in demersal fishery by profitable reasons. Traditionally, most data from this strata were collected during observer trips. Due to traveling restrictions related to COVID-19, only 3 trips with observer on-board were performed.

Planned sampling level for sampled trips were not reached for strata OSF SAL-LLD (a new fishery segment) due to good salmon catches in 2020, planed number of biological data were collected from 8 trips. This fishery is started from 4th quarter of 2018. In 2020 data was collected first year using self-sampling method.

Planned sampling level for sampled trips were greatly exceeded for strata SB-2 (coastal fishery with exception of sprat and herring). The reason for the excess sampling in the coastal fishery was connected with data collection for eel, salmon, pike perch and sea trout to achieve the planned sampling level since the catches of these species in coastal fishery were very low in last few years and the number of fishes in a single fishery act was small (the total catches in 2020 for eel, salmon, pike perch and sea trout were 0.23t, 4.1t, 3.8t, 5.8t, respectively). Data are collected using self-sampling method and aggregated in the end of year. Due to the low catches fishermen collect information about all fishes caught. During the year is problematic to do a prognoses about amount of collected material. Excess sampling has been realized on the national expense of Latvia.

During the 2020 all predominant fishing activities were sampled. In other fishing activities catches of fish species are on very low level, so no sampling is necessary. Active Latvian fishing fleet is small and only few commercial significant fish species in open part of Baltic Sea are available, which are sampled.

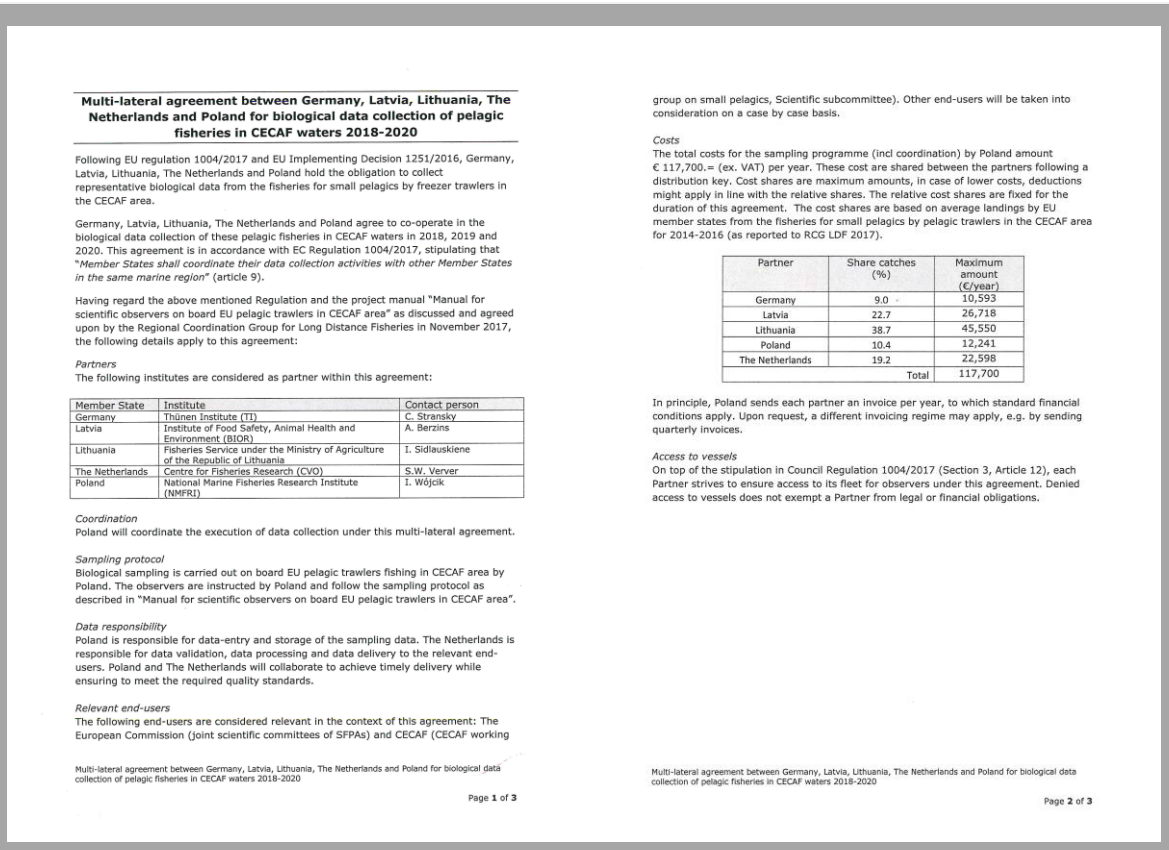
Data on bycatch is collected from two sources: biological data collection (observer or self-sampling) under Work Plan for data collection in the fisheries and aquaculture sectors and cetaceans bycatch monitoring program ((EU) 2019/1241). This is a reason why achieved number of PSU is different in Table 1F and 4A. Annex XIII of Regulation (EU) 2019/1241 requires Member States to carry out monitoring of cetaceans bycatch in pelagic fishery in Baltic Sea. As this is another regulation, sampling of cetacean's bycatch is not included in Work Plan sampling schemes.

**Eastern Arctic**

There were three Latvian vessels fishing in the Eastern Arctic. The fishing quota is acquired in exchange between NAFO and NEAFC. The vessels are targeting Shrimp (*Pandalus borealis*) with beam trawl and made one trip with otter trawl targeting Atlantic cod (*Gadus morhua*) where by-catch of redfish (less than 1 ton) was observed. No sampling is planned due to unpredictable timing and geographical scope of fishing trips. The negotiation process with Estonia about the bilateral agreement of data collection is in progress.

**Other regions (CECAF area Central East Atlantic)**

In 2020 the sampling was performed by Polish observers based on multilateral agreement between five countries (Germany, Latvia, Lithuania, The Netherlands and Poland).



**Multi-lateral agreement between Germany, Latvia, Lithuania, The Netherlands and Poland for biological data collection of pelagic fisheries in CECAF waters 2018-2020**

Following EU regulation 1004/2017 and EU Implementing Decision 1251/2016, Germany, Latvia, Lithuania, The Netherlands and Poland hold the obligation to collect representative biological data from the fisheries for small pelagics by freezer trawlers in the CECAF area.

Germany, Latvia, Lithuania, The Netherlands and Poland agree to co-operate in the biological data collection of these pelagic fisheries in CECAF waters in 2018, 2019 and 2020. This agreement is in accordance with EC Regulation 1004/2017, stipulating that "*Member States shall coordinate their data collection activities with other Member States in the same marine region*" (article 9).

Having regard the above mentioned Regulation and the project manual "Manual for scientific observers on board EU pelagic trawlers in CECAF area" as discussed and agreed upon by the Regional Coordination Group for Long Distance Fisheries in November 2017, the following details apply to this agreement:

*Partners*
The following institutes are considered as partner within this agreement:

| Member State | Institute | Contact person |
|---|---|---|
| Germany | Thünen Institute (TI) | C. Stransky |
| Latvia | Institute of Food Safety, Animal Health and Environment (BIOR) | A. Berzins |
| Lithuania | Fisheries Service under the Ministry of Agriculture of the Republic of Lithuania | I. Sidlauskiene |
| The Netherlands | Centre for Fisheries Research (CVO) | S.W. Verver |
| Poland | National Marine Fisheries Research Institute (NMFRI) | I. Wójcik |

*Coordination*
Poland will coordinate the execution of data collection under this multi-lateral agreement.

*Sampling protocol*
Biological sampling is carried out on board EU pelagic trawlers fishing in CECAF area by Poland. The observers are instructed by Poland and follow the sampling protocol as described in "Manual for scientific observers on board EU pelagic trawlers in CECAF area".

*Data responsibility*
Poland is responsible for data-entry and storage of the sampling data. The Netherlands is responsible for data validation, data processing and data delivery to the relevant end-users. Poland and The Netherlands will collaborate to achieve timely delivery while ensuring to meet the required quality standards.

*Relevant end-users*
The following end-users are considered relevant in the context of this agreement: The European Commission (joint scientific committees of SFPAs) and CECAF (CECAF working

Multi-lateral agreement between Germany, Latvia, Lithuania, The Netherlands and Poland for biological data collection of pelagic fisheries in CECAF waters 2018-2020

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group on small pelagics, Scientific subcommittee). Other end-users will be taken into consideration on a case by case basis.

*Costs*
The total costs for the sampling programme (incl coordination) by Poland amount € 117,700.= (ex. VAT) per year. These cost are shared between the partners following a distribution key. Cost shares are maximum amounts, in case of lower costs, deductions might apply in line with the relative shares. The relative cost shares are fixed for the duration of this agreement. The cost shares are based on average landings by EU member states from the fisheries for small pelagics by pelagic trawlers in the CECAF area for 2014-2016 (as reported to RCG LDF 2017).

| Partner | Share catches (%) | Maximum amount (€/year) |
|---|---|---|
| Germany | 9.0 | 10,593 |
| Latvia | 22.7 | 26,718 |
| Lithuania | 38.7 | 45,550 |
| Poland | 10.4 | 12,241 |
| The Netherlands | 19.2 | 22,598 |
| | Total | 117,700 |

In principle, Poland sends each partner an invoice per year, to which standard financial conditions apply. Upon request, a different invoicing regime may apply, e.g. by sending quarterly invoices.

*Access to vessels*
On top of the stipulation in Council Regulation 1004/2017 (Section 3, Article 12), each Partner strives to ensure access to its fleet for observers under this agreement. Denied access to vessels does not exempt a Partner from legal or financial obligations.

Multi-lateral agreement between Germany, Latvia, Lithuania, The Netherlands and Poland for biological data collection of pelagic fisheries in CECAF waters 2018-2020

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3. Action to avoid deviations

In 2021 the sampling scheme will be adapted to take into account the changes in fishing activity and to ensure that the planned number of length measurements and trip number are achieved.

*(max. 1000 words per region OR fishing ground)*

## SECTION 5: DATA QUALITY

## Text Box 5A: Quality assurance framework for biological data

General comment: This box is applicable to the Annual Report. This box fulfills Article 5 paragraph (2) point (a) of the Decision (EU) 2016/1701. This box is intended to specify data to be collected under Tables 1(A), 1(B) and 1(C) of the multiannual Union programme.Use this box to provide additional information on Table 5A.

1. Evidence of data quality assurance

Data quality assurance is described in manual for observers how to collect biological data and how to deal with collected data. Sampling design is described in methodology of biological sampling random principle. Refusals and positive responses are recorded in random sample protocol, which is not publically accessible. Link for sampling design scheme is provided in table file of Annual Report in Table 5A (in Latvian). All collected data are imported in local biological database BIODATA and also imported to regional database FishFrame.

2. Sampling design

'Y' was indicated in Table 5A.

Sampling design, sampling implementation and data capture are described in six files (link is provided in Table 5A) in Latvian:

- A handbook for Latvian observers how to collect biological information from fishing vessels in the Baltic Sea;
- Biological data collection for Atlantic Cod from commercial fishery;
- Biological data collection for Flounder from commercial fishery;
- Guidelines to perform coastal fish monitoring, Gulf of Riga Demersal Fish survey and Flatfishes Juvenile Survey;
- Guidelines to calculate the accuracy;
- Guidelines to collect information in recreational fisheries.

BITS and BIAS surveys are performed according to ICES surveys manuals:

- Manual for the Baltic International Trawl Surveys (BITS) Version 2.0
- Manual for the International Baltic Acoustic Surveys (IBAS) Version 2.0

3. Sampling implementation

'Y' was indicated in Table 5A.

4. Data capture

'Y' was indicated in Table 5A.

5. Data Storage

'Y' was indicated in Table 5A.

6. Data processing

'Y' was indicated in Table 5A.

Data processing is performed according to guidelines for each data call.

(max. 900 words per Region/RFMO/RFO/IO OR sampling scheme)

## Text Box 5B: Quality assurance framework for socioeconomic data

General comment: This box fulfills Article 5 paragraph (2) point (b) of the Decision (EU) 2016/1701. This box is intended to specify data to be collected under Tables 5(A), 6 and 7 of the multiannual Union programme. Use this box to provide additional information on Table 5B.

1. Evidence of data quality assurance

Latvia fulfils the obligation in the frame of data collection Commission Implementing Decision (EU) 2019/909 and Commission Delegated Decision 2019/910. The information for the "all sectors" was collected in accordance with the Latvian Work Plan 2020-2021. The coverage rate for the "all data collection schemes" was 100% for the fishing activity and economic data.

The methodology used to assure the quality of the collected data is presented in the section 2A, table 2A and sections 3A, 3B, 3C under paragraphs: 5. Sound methodology, 6. Accuracy and reliability, 7. Accessibility and Clarity, as well as in the tables 3A, 3B, 3C.

2. Section P3 Impartiality and objectiveness

'Y' was indicated in Table 5B.

3. Section P4 Confidentiality

'Y' was indicated in Table 5B.

4. Section P5 Sound methodology

'Y' was indicated in Table 5B.

5. Section P6 Appropriate statistical procedures

'N' was indicated in Table 5B for the question "Are revisions documented and available?"

The collected information is stored in the database and different codes are applied for each type of entered data. In case of revision the code is automatically changed into the other type of code characterising the mistake or changes in entered information. All codes are stored in the appropriate tables which are part of the data base. As the result all revisions are automatically documented but cannot be available because it is a technical part of the database.

6. Section P7 Non-excessive burden on respondents

'Y' was indicated in Table 5B.

7. Section P8 Cost effectiveness

'Y' was indicated in Table 5B.

8. Section P9 Relevance

'N' was indicated in Table 5B for the question "Are end-users listed and updated?"

The information could be required by the different end-users during the year. The exchange of information within the country takes place on the basis of agreements on the transfer of data between different institutions. Data transfer to new end-users is carried out only after a detailed acquaintance with the request purpose.

9. Section P10 Accuracy and reliability

'Y' was indicated in Table 5B.

10. Section P11 Timeliness and punctuality

'Y' was indicated in Table 5B.

11. Section P12 coherence and comparability

'Y' was indicated in Table 5B.

12. Section P13 Accessibility and Clarity

‘N’ was indicated in Table 5B for the question “Are methodological documents publicly available?” in case when data sources are administrative or financial accounts data. Under these types of data sources, the data required from the different state government databases are mentioned. The methodological documents are provided for the data collected by survey.

(max. 900 words per Region/RFMO/RFO/IO/NSB OR sector)