

**Estonian National Programme
for collection of fisheries data
for 2009-2010**

by

**Fish Resources Department, Ministry of the
Environment of Estonia
Estonian Marine Institute, University of Tartu**

Tallinn 15 October 2008

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I. General framework

The planned Estonian data collection programme corresponds to the Guidelines (Version 2008) for the submission of National Programme Proposals on the National Data Collection Programmes under Council Regulation (EC) 199/2008, Commission Regulation (EC) 665/2008 and Commission Decision 2008/949/EC.

Years 2009 and 2010 are covered by the NP Proposal.

Sampling scheme has been re-arranged according to the requirements of metier-directed sampling. However, the number of fish analysed has not decreased even if the requirements of the new regulation allow it. This also means that sampling of several locally very important species (Baltic Sea: G2 species) will be conducted annually (not triannually) also in future, otherwise it will not be possible to get data needed for management these stocks.

II. Organisation of the National Programme

The programme will be conducted in close cooperation between:

- **Estonian Marine Institute (EMI)**

Estonian Marine Institute, University of Tartu, is a Public Research Institution that carries out research, investigations and provides advice concerning sustainable exploitation of live marine and fresh water resources. It has experience in fisheries management and economics, as well as in mathematical modelling. Institute has an agreement with the Ministry of the Environment to conduct applied fisheries research in Estonia, and is responsible for the main part of the National Data Collection Programme in 2009-2010.

- **Estonian Ministry of the Environment (EME)**

Estonian Ministry of the Environment is responsible for regulating the questions concerning the protection of marine nature and environment, as well as for solving the tasks concerning the use of marine resources. The Fish Resources Department, established in 2001 to replace the Fisheries Board and the Fisheries Department, manages and co-ordinates research, assessment, exploitation, reproduction and protection of fish resources.

- **Estonian Ministry of Agriculture (EMA)**

As of March 2001, the fisheries matters are divided between two ministries: the Ministry of the Environment and Ministry of Agriculture. Fishing Industry Department of the latter deals with issues of pisciculture, production, processing and marketing of fish and fish products, structural fishing policy. Since 1 January 2006, EMA holds the Estonian Fisheries Information System.

Estonian Ministry of the Environment is acting as coordinator for the Estonian Programme. The participating institute will be treated as partner.

All data collected under the programme are dealt with in confidence. Accesses to the data are limited to authorised staff members from the participating institutions and no one outside the institutions has access to the data without permission.

II.A National organisation and co-ordination

Estonia has assigned the Estonian Ministry of the Environment as the National Correspondent.

Contact person is:

Kunnar Klaas
Estonian Ministry of the Environment
Narva mnt 7a
15172 Tallinn, Estonia
Phone: +372 62 60 714
Fax: +372 62 60 710
E-mail: kunnar.klaas@envir.ee

Participating institute

Estonian Marine Institute
Mäealuse 10a
EE-12618 Tallinn
Estonia
Phone: + 372 6718 901
Fax: +372 6718 900
E-mail : meri@sea.ee
<http://www.sea.ee>

Contact person:

Toomas Saat, director, phone: + 372 6718 901, fax: +372 6718 900
E-mail: Toomas.Saat@ut.ee

Two national co-ordination meetings that are planned in 2009. The first of them will be organized early in the year, presumably in January, after the final adoption of the National Programme by the Commission, in order to discuss and explain new requirements of the programme, and to finalize the final work programme for 2009. Also, topics related to coordination of the national data collection programme with other MS national programmes in the Baltic Sea and in the North Atlantic regions will be discussed. The second meeting will be organized during the IV quarter, to analyse the outcome of the work and possible modifications for the year 2010.

II.B International co-ordination

Table II.B.1. gives an overview of the international co-ordination meetings (Planning Groups, Study Groups, Regional Co-ordination Meetings, etc.) and the workshops that will be attended, and of the meetings in which the MS will participate. The number of participants of the MS attending each of the listed meetings is also indicated.

II.C Regional co-ordination

Estonia will participate in the following Regional Co-ordination Meetings: Baltic Sea; North Atlantic.

III.

Module of evaluation of the fishing sector

III.A General description of the fishing sector

The Estonian fleet operates regularly in 2 regions:

1. Baltic Sea, fishing ground SD 25-32 (occasionally SD 22-24);
2. North Atlantic, mostly fishing grounds of the NAFO Regulatory Area but (occasionally) also other fishing grounds.

Irregular fishery is conducted in the North Sea and Eastern Arctic region (fishing grounds I and II), and even more occasionally in other regions.

Sampling programme can be designed for areas where the fleet operates regularly, namely, Baltic region, fishing ground 25-32, and North Atlantic.

National fishery is described in Table III.A.1.

III.B Economic variables

Baltic Sea, Eastern Arctic and North Atlantic

III.B.1 Data acquisition

The data concerning economic variables will be collected as listed and defined in Appendix VI of Commission Decision 2008/949/EC. The data below refers both Baltic Sea and NAFO (where Estonia has only 5-6 trawlers, mainly targeting shrimp).

Data sources will be as follows: logbooks and sales notes for income through fishing (gross value of landings), company accounts for other income. Surveys will be used to obtain data on personnel costs, energy costs, repair and maintenance costs, other operational costs, capital costs and capital values. The data on investments will be collected using (and comparing if possible) different sources (surveys, company accounts, information about vessel price data on relevant web-pages etc.). The data on financial position will be obtained using surveys, and on employment using surveys and company accounts (trawling sectors) and Estonian Fisheries

Information System (EFIS), consulting also the County Governments (coastal fishery using passive gears). Estonian Fisheries Information System also reflects the relevant data concerning fleet and effort, number of fishing enterprises/units and production value per species.

The reference years of the data are 2008 (to be collected in 2009, available October – December 2009) and 2009 (to be collected in 2010, available October – December 2010).

Allocation problems of vessels don't exist, because all vessels fish only in the Baltic Sea or NAFO.

Due to the small total number of vessels larger than 12 m in the Estonian fleet, several segments have been clustered. The explanation is given in Table III.B.2, and the clusters in the Table III.B.1 are named according to the biggest segment in terms of number of vessels.

It is planned to collect data in aim to calculate indicator “fuel efficiency of fish capture”. The necessary data on the value of landings and cost of fuel by segments will be obtained using the Estonian Fisheries Information System (landings by species and prices) and surveys, respectively. The indicator will be calculated for each metier based on the level 6 for the metier classification by region, quarter and year.

For inactive vessels only capital value, fleet and capacity will be collected according to Commission Decision 2008/949/EC.

In the case of the sample, the unknown data for the whole population will be estimated based on the average variables values of the sample.

The calculations of imputed value of unpaid labour will be estimated based on these employment estimators and collected through the questionnaires.

III.B.2 Data quality

Consistency and comparability for some economic variables will be ensured by using of official data sources. Results of questionnaires will be checked for consistency and comparability of the numbers. Extreme values which are wrong by evidence will be reviewed.

In most cases stratified random sampling will be used. It is planned to follow the standard approach for calculation of capital value and depreciation, i.e. as described on the DCR website (<http://fishnet.jrc.it/web/datacollection>).

III.B.3 Regional coordination

No finalised initiatives taken to coordinate the national programme with other Member States in the same marine region, with regard to the collection of economic variables.

III.B.4 Derogations and non-conformities

No.

III.C Biological - metier-related variables

Baltic Sea

III.C.1 Selection of metiers to sample

Information used for ranking was obtained from the EFIS, which data are based on logbooks data.

Information on fishing effort in EFIS is different for different gear types: fishing hours can be obtained for various trawls, number of checks (the total number of checked gear: fykes, gill-nets, hooks) for other gear. Therefore, the ranking of metiers was based on 1) landings data and then 2) value of the catch.

Gill-net, trap-net and longline fisheries are essentially mixed fisherie (a category missing for the Baltic Sea in Appendix IV, level 5), and the catch is a mixture of demersal marine and freshwater fish, with some amount of anadromous, catadromous (eel) and small pelagic fish. For example, fine mesh-sized gill nets assigned for the herring, are mostly used by fishermen to catch a freshwater demersal species, perch. Similarly, smaller fyke nets and gill-nets were formerly used mainly to catch eel, but nowadays (due to the eel stock collapse) the bulk of the catch consists of demersal fish of marine and freshwater origin. Therefore, these metiers were defined as “demersal”.

According to the national legislation, discarding is prohibited in the Estonian waters. Actual discarding rate, as revealed by observers on board, is very low (close to zero), in trawl and most of coastal fisheries. The main reason for discarding in coastal gill net and pound net fishery is damage to fish caused by seals and cormorants. It is a common practice of commercial fishermen to release undersized fish alive from passive gears.

III.C.2 Data acquisition

Due to similar catch composition and overlapping fishing grounds, two metiers were merged for sampling purposes (Table III.C.2).

Commission Decision 2008/949/EC, section III.B.B1.3.(1)(e) was as a basis for allocation the sampling effort between its relevant metiers recognising (i) that the sampling unit will be the fishing trip and that sampling effort should be proportional to the relative effort and variability of the metiers and (ii) the requirement that the minimum number of fishing trips to be sampled shall never be less than 1 fishing trip per month during the fishing season for fishing trips of less than 2 weeks and 1 fishing trip per quarter otherwise.

For highly variable metiers (gill-net fishery, fyke-net fishery) sampling effort per unit of landings relatively greater.

Table III.C.3 summarises the sampling strategies and sampling effort for metier-related variables and Table III.C.4 to show the length measurement targets.

As in earlier years of the DCR (and therefore formally accepted as a part of the national data collection programme), Estonia will continue gill-net test fishing in permanent research areas along the Estonian coast using standard methods (Thoresson, 1993; Saat et al., 2003). This

fishery-independent approach corresponds to the ecosystem approach in fishery data collection and fisheries management, and it has successfully been used for species which have many local stocks (e.g. perch which usually does not migrate over 10 km during its life) or for which there is no directed fishery and only single specimens can be obtained from commercial landings (e.g. cod, whitefish). Test fishing gives data on the recruitment (year-class strength of juveniles) of the eastern Baltic cod (autumn test fishing in deep K udema Bay since 1993). This method gives CPUE and year-class data also for several species: pikeperch, flounder, pike, and also for many species not listed in the DCR (but of local commercial and recreational importance, e.g. several cyprinids), as the whole assemblage is fished with a defined series of gill-nets of different mesh size, and all the fish are individually analysed. For the abovementioned species, test-fishing gives age-length key which is applied also for commercial samples.

Continuation of test-fishing (gathering fisheries-independent data) is also important for calculation of indicators 1-4 of the effects of the fisheries sector on the marine ecosystem. Data are available since 1992.

III.C.3 Data quality

For each of the selected metiers, national metiers have been established following Commission Decision 2008/949/EC Chapter III. B.B1.2.(2).

National metier stratifications:

Metier LVL6	National metier	Target species	Space strata	Time strata	Comments
OTM_SPF_100_0_0	OTB_small pelagics	Herring, sprat, cod	IIIId	Quarterly estimates	TAC regulated Quota restriction
	OTB_others	Cod	IIIbc	Quarterly estimates	TAC regulated Quota restriction

Metier LVL6	National metier	Target species	Space strata	Time strata	Comments
FPN_SPF>=16_0_0	FPN_herring	Herring	IIIId	Quarterly estimates	TAC regulated Quota restriction
	FPN_others	Salmon, sea trout, eel, flounder	IIIId	Quarterly estimates	Salmon is TAC regulated

Metier LVL6	National metier	Target species	Space strata	Time strata	Comments
GNS_DEF_>=36_0_0	GNS_cod	Cod	IIIbc	Quarterly estimates	TAC regulated Quota restriction
	GNS_salmonids	Salmon, sea trout	IIIId, esp. Gulf of Finland	Quarterly estimates	Salmon is TAC regulated

	GNS_Others	Founder, whitefish, pikeperch, perch, pike	IIIId, esp Gulf of Riga and Gulf of Finland	Quarterly estimates	
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Metier LVL6	National metier	Target species	Space strata	Time strata	Comments
FYK_DEF>=16_0_0	FYK_herring	Herring	IIIId	II quarter, monthly	TAC regulated Quota restriction
	FYK_eel	Eel	IIIId	Quarterly estimates	
	FYK_Others	Salmon, sea trout, flounder, perch, pikeperch	IIIId	Quarterly estimates	

III.C.4 Regional co-ordination

Until now, no specific initiatives have been taken to coordinate the national programme with other Member States.

III.C.5 Derogations and non-conformities

To avoid changes in the data collection system that could have an impact on the overall continuity and consistency of the data series collected, gill net test fishing will be continued as in earlier years of the Estonian participation in the DCR.

North Atlantic

III.C.1 Selection of metiers to sample

Information used for ranking was originally obtained from the EFIS, which data are based on logbooks data. However, this information appeared to be incomplete and it was revised using observers' data.

Metiers selected for sampling are listed in Table III.C.1, and they were selected according to the rules laid down in the Commission Decision 2008/949/EC.

Discard levels in the Estonian fisheries are normally less than 5%, most often 1-2%, both in selected and unselected metiers.

III.C.2 Data acquisition

Commission Decision 2008/949/EC, was as a basis for allocation the sampling effort between relevant metiers recognising (i) that the sampling unit will be the fishing trip and that sampling effort should be proportional to the relative effort and variability of the metiers and (ii) the

requirement that the minimum number of fishing trips to be sampled shall never be less than 1 fishing trip per month during the fishing season for fishing trips of less than 2 weeks and 1 fishing trip per quarter otherwise.

Data collection in the NAFO area is performed by observers employed by the EMI on board of vessels. Metier OTM_CRU_40_2-19-22: Monthly data are needed BY NAFO SC for shrimp assessment. Therefore, minimum 10 trips per year (each lasting usually 1,5-2 months) are required for data collection. Sampling intensity will be lower than in previous years but sufficient to get data on length, sex and maturity distribution of shrimp catches, and abundance and length distribution of the bycatch (mostly juvenile redfish).

Finfish is fished usually during 2-3 fishing trips per year. Observers on board will collect relevant data during 2 trips per year.

Table III.C.3 summarises the sampling strategies and sampling effort for metier-related variables and Table III.C.4 to show the length measurement targets.

III.C.3 Data quality

For OTM_CRU_40_2-19-22, shrimp and bycatch measurements will be carried out both for NAFO 3M and 3L.

For the finfish fishery in the NAFO area (OTB_DEF_130-280_0_0), no further (national) metier stratification can be proposed as different fishing grounds are fished not regularly.

III.C.4 Regional co-ordination

Lacking at this moment. Due to a large number of shrimp analysed from NAFO 3M and 3L and good temporal coverage (all months) in recent years, and due to a remarkable share of shrimp landings in the EU landings, Estonia may act as coordinator for data collection of shrimp in NAFO 3LM. This proposal includes also bycatch analyses in shrimp fishery.

III.C.5 Derogations and non-conformities

No.

North Sea and Eastern Arctic

Due to very low quotas, the Estonian fishery in this region is rather irregular, with low effort, landings and value of landings, and no sampling scheme can be implemented.

In recent years, Estonian vessels operating in the NEAFC have had a scientific observer on board. According to their reports, actual discarding is small, below 5% of the catch.

The following Table gives an overview of landings and value in this region in 2006 and 2007:

Other regions

Over many years, there was a single (exploratory) trip to the southern Atlantic in 2006, which yielded in total landings of 1867 t of mixed cephalopods and finfish. Regular sampling scheme for this region is impossible.

III.C.5 Derogations and non-conformities

No sampling in the North Sea and Eastern Arctic, and in Other regions.

III.D Biological - Recreational fisheries

Baltic Sea

(no recreational fishery in other regions)

III.D.1 Data acquisition

Recreational fishery in Estonia is developing. According to the results of questionnaire (2002-2003), recreational fishery is more concentrated to fresh waters, especially rivers. Recreational fishermen mostly use rods, but they can purchase a license to use the limited number of gill nets and longlines.

Users of a single rod do not need a license on most of water bodies.

For licensed recreational fishery it is mandatory to report the catches since 2005. In general, reported catches of salmon, sea trout and cod by recreational fishermen are small. In the internet inquiry (October-November 2004, 1233 responses) only 2 persons reported the catch of cod, 31 – catch of salmon, 16 – catch of sea trout (in the case of salmon and trout, catches both in the sea and in rivers are included).

Data on reported catches of cod, salmon and eel (the species listed in Appendix 4) (as well as other species) by recreational fishermen can be obtained from EFIS. Reporting of catches is mandatory since 2005. The proportion of recreational catch in the total catch was between 10-20% in the case of cod, sea trout and flounder in 2006-07, and 30% in 2007 (twice as much as in 2006) in the case of salmon. The latter number probably reflects the increased reporting rate of recreational catches. The following Table includes data for 2007:

Species	Commercial catch (coastal fishery), t	Recreational catch, t	Total, t	Recreational, % in 2007	Recreational, % in 2006
MP species					
Cod	0,835	0,204	1,039	19,6	15,9
Eel	6,106	0,201	6,307	3,2	2,5
Salmon	5,448	2,365	7,813	30,3	15,4
Sea trout	17,102	3,299	20,401	16,2	17,8
Flounder	315,838	42,755	358,593	11,9	11,5
Baltichering	646,579	2,457	649,036	0,0	0,0
Sprat	0,067	0,029	0,096	-	0,2

There is an important recreational under-ice fishery which targets mostly perch on Pärnu Bay (Gulf of Riga) where catches of perch (according to EMI data from the early 2000s) may exceed the yearly catches of the commercial fishery in certain years (with long ice cover).

III.D.2 Data quality

The total amount of cod, eel and salmon taken by recreational fishermen is less than 5 t. The most important species is salmon.

Catch data for these species can be obtained from EFIS. Recreational fishermen having a licence for salmon fishery must register the length of fish. No further activities are planned to monitor the recreational fishery for cod, eel and salmon.

For other species (categories 1 and 2, and locally important species not listed in DCR), sampling of under-ice catches (not included in EFIS database) as well as size composition of recreational catches should be organized as previously (questionnaires and measurements of fish directly on fishing grounds).

III.D.3 Regional co-ordination

No

III.D.4 Derogations and non-conformities

No.

III.E Biological - stock-related variables

Baltic Sea

III.E.1 Selection of stocks to sample

Table III.E.1 identifies which stocks are going to be included in the sampling scheme and provides the elements for requested derogations.

The stocks that will not be sampled for any of the parameters are in pale grey in Table III.E.1.

Table III E.2 gives an overview of the long-term sampling strategy with respect to 'Stock related variables'.

Table III E.3 gives an overview of the planned sampling for age, weight, sex ratio, maturity and fecundity in the NP years.

In addition, Estonia will continue to monitor wild salmon stocks in rivers falling in the Gulf of Finland, and in the Pärnu River (Gulf of Riga) (as well as several sea trout rivers). Information on abundance of smolt and parr will be collected using electrofishing. Information in number of ascending individuals will be collected using a trap net in one river (the Pirita River), as in earlier years.

III.E.2 Data acquisition

The following sources will be used for collecting stock-related variables: commercial fisheries, surveys, test-fishing. For more abundant species (with bigger sampling effort), data collection meets the requirements specified in the Appendix VII of Commission Decision 2008/949/EC.

However, Estonia is in the position to collect stock-related data according to the scheme used in previous years (during participation in the DCR since 2005, and earlier). This means data collection for species currently of low abundance, and the annual scheme of data collection. Therefore, sampling will be annual for the species, which were sampled (according to the requirements of DCR) annually. This allows to follow changes in recruitment and to prognosticate the future stock situation.

Most of these stocks are local (sedentary), and international cooperation in sampling (concerning sampling volume) does not help.

For sex ratios, maturity and fecundity, the parameters are referenced both to age or length.

III.E.3 Data quality

The coverage and precision levels for abundant species sampled with high intensity (herring, sprat, perch, pikeperch, flounder, etc) will be in accordance with those specified in Commission Decision 2008/949/EC, Chapter III, section B.B2.4.

III.E.4 Regional co-ordination

Sampling intensity for herring and sprat meets the requirements of the corresponding ICES WG.

III.E.5 Derogations and non-conformities

As explained above, Estonia will keep the annual sampling scheme for the species, which were sampled annually according to the requirements of the former DCR.

For less abundant species (eel, cod, turbot, salmon, sea trout), targets set by the Commission Decision 2008/949/EC, Chapter III, section B.B2.4, may not be achieved.

North Atlantic

III.E.1 Selection of stocks to sample

Table III.E.1 identifies which stocks are going to be included in the sampling scheme and provides the elements for requested derogations.

The stocks that will not be sampled for any of the parameters are in pale grey in Table III.E.1.

Table III E.2 gives an overview of the long-term sampling strategy with respect to 'Stock related variables'.

Table III E.3 gives an overview of the planned sampling for age, weight, sex ratio, maturity and fecundity in the NP years.

III.E.2 Data acquisition

The following source will be used for collecting stock-related variables: sampling by observers on board of fishing vessels. Data collection meets the requirements specified in the Appendix VII of Commission Decision 2008/949/EC.

For sex ratios, maturity and fecundity, the parameters are referenced to length.

III.E.3 Data quality

The coverage and precision levels will be in accordance with those specified in Commission Decision 2008/949/EC, Chapter III, section B.B2.4.

III.E.4 Regional co-ordination

Sampling intensity for shrimp meets the requirements of the NAFO SC. Data for redfish and Greenland halibut will be forwarded to the NAFO SC, and in combination with other MS data,

the sampling intensity and targets meet the requirements of the Commission Decision 2008/949/EC.

III.E.5 Derogations and non-conformities

Formal derogations with regard to the data collection on “Stock related variables” are already included in table III E.1 (see section III.E.1). Estonia asks for derogation in sampling several stocks not fished by the Estonian fleet, fished in very low quantities (less than 200 t), and the stocks, which are fished irregularly (not every year) (Table III.E.1).

North Sea and Eastern Arctic, and Other regions

Estonian fishery in these regions is not regular; quantities of landed fishes are low (Table III.E.1).

Derogations and non-conformities

Estonia asks for derogation in sampling in the North Sea and Eastern Arctic region, and in Other regions.

III.F Transversal variables

III.F.1 Capacity

III.F.1.1 Data acquisition

Fishing capacity data will be obtained from EFIS, which also contains data on the fleet.

III.F.1.2 Data Quality

The quality of the collected data will be analysed using cross checking.

III.F.1.3 Regional co-ordination

No.

III.F.1.4 Derogations and non-conformities

No.

III.F.2 Effort

III.F.2.1 Data acquisition

The effort variables listed in appendix VIII will be obtained from EFIS (100% coverage); data in EFIS are mostly based on landings and effort declarations. For the North Atlantic, data will be verified using observers’ data.

No specific actions for vessels less than 10 meters are needed as data are included in EFIS.

III.F.2.2 Data quality

For the North Atlantic, data will be verified using observers' data.

III.F.2.3 Regional co-ordination

No

III.F.2.4 Derogations and non-conformities

No.

III.F.3 Landings

III.F.3.1 Data acquisition

Landings live weight will be obtained from EFIS (based on logbooks, landings and effort declarations).

Table III.F.3 to provides conversion factors; they are normally not used, as intact fishes will be analysed.

To calculate annual average prices per species, weighted averages will be used.

No specific actions for vessels less than 10 meters are needed, as data are included in EFIS.

III.F.3.2 Data quality

Cross-checking and data collected by observers on board will be used for data validation.

III.F.3.3 Regional co-ordination

No.

III.F.3.4 Derogations and non-conformities

No.

III.G Research surveys at sea

III.G.1 Planned surveys

Estonia will participate (as in earlier years) in 3 surveys listed at Appendix IX of Commission Decision (2008/949/EC) (Table III.G.1):

Name of survey	Aim of survey	Area(s) covered	Period (Month)
Baltic International Trawl Survey, BITS Q4 (Figure 1)	cod and other demersal	IIIb-d	IV q
Baltic International Acoustic Survey (Autumn) (Fig. 2)	Herring, sprat abundance	IIIb-d	Sep-Oct
Gulf of Riga Acoustic Herring Survey (Fig. 3)	Herring abundance	IIIb-d	III q

Data of all these surveys will be stored both in national and international (ICES) databases. Data obtained during all these surveys are suitable for the calculation of the ecosystem indicators 1 to 4 listed in appendix XIII.

Table III.G.1 gives an overview of the planned numbers of days at sea, and the planned numbers of echo sounding tracks, fishing hauls.

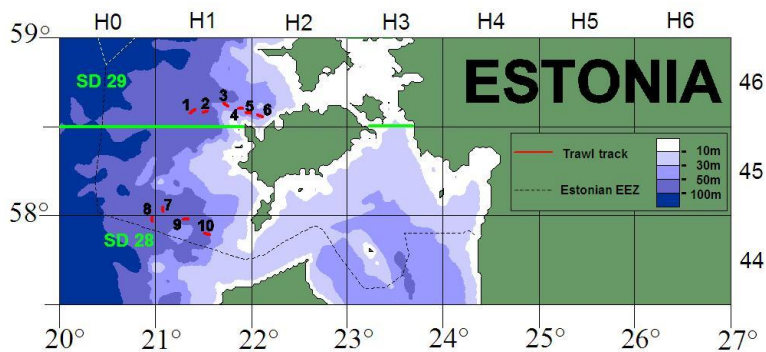


Figure 1. Baltic International Trawl Survey, BITS Q4 (Haul positions in 2007)

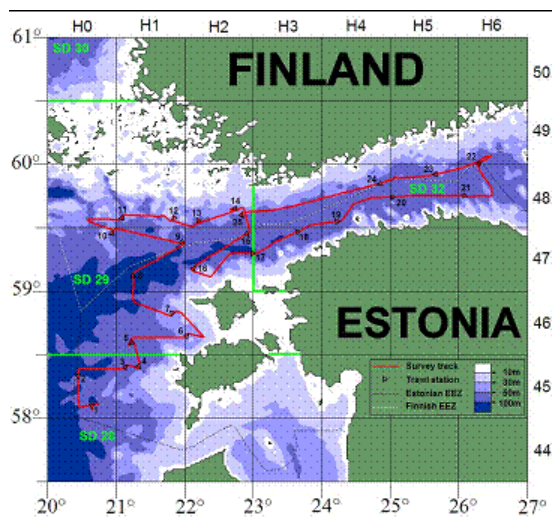


Figure 2. Baltic International Acoustic Survey (Autumn) (*Acoustic survey track and trawl positions in 2007*)

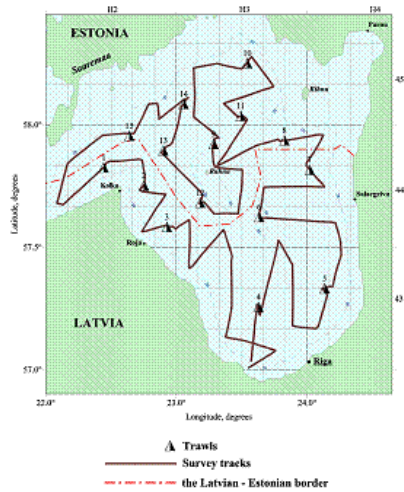


Figure 3. Gulf of Riga Acoustic Herring Survey (*Acoustic survey track and trawl positions in 2007*)

III.G.2 Modifications in the surveys

No changes in the design of the surveys are foreseen.

IV. Module of the evaluation of the economic situation of the aquaculture and processing industry

IV.A Collection of data concerning the aquaculture

IV.A.1 General description of the aquaculture sector

Estonian aquaculture sector is very small. Two most important species are rainbow trout and carp. Additionally, few enterprises farming carp provide very limited production of other fresh water species mainly for stocking (sea trout, pike, pikeperch, whitefish, tench). Due to the very small number of enterprises it is possible to collect data only concerning rainbow trout, concerning other species the value of production is too small to justify any sampling activities (also, confidentiality problems may arise). Even concerning rainbow trout the total number of enterprises is only 11.

However, Estonia shall provide information on the importance of the aquaculture sector (all producers included) compared with the fishery sector, both in terms of values and volume (tons) of production.

IV.A.2 Data acquisition

The data will be collected about all variables listed and defined in Appendix X of Commission Decision 2008/949/EC. Data sources will be both company accounts and surveys. If some enterprises are not willing to give information on the voluntary basis (as questionnaires or telephone interviews), only company accounts sent to the Tax and Customs Board will be used.

The reference years of the data are 2008 (to be collected in 2009, available October – December 2009) and 2009 (to be collected in 2010, available October – December 2010).

In the case of the sample, the unknown data for the whole population will be estimated based on the average variables values of the sample.

The calculations of imputed value of unpaid labour will be estimated based on these employment estimators and collected through the questionnaires.

IV.A.3 Data quality

The table IV.A.3 reveals the details on the sampling methods used and on the methods used to assure the quality of the collected data.

Consistency and comparability for some economic variables will be ensured by using of official data sources. Results of questionnaires will be checked for consistency and comparability of the numbers. Extreme values which are wrong by evidence will be reviewed.

IV.A.4 Regional coordination

No.

IV.A.5 Derogations and non-conformities

No.

IV.B. Collection of data concerning the processing industry

IV.B.1 Data acquisition

Due to the fact that Estonia does not have very large fish processing plants (i.e. sector is rather homogenous) and since the new DCR does not indicate any segmentation, it is not planned to stratify the population into several segments (e.g. by the number of employees).

The data will be collected all variables listed and defined in Appendix XII of Commission Decision 2008/949/EC.

All data (income, personnel costs, energy costs etc.) will be collected using the company accounts sent by the enterprises to the Estonia Tax and Customs Board (by June 30 of the following year). In case if it is possible (i.e. when enterprise agrees) telephone interviews will be used to specify the details (e.g. on FTE of employed personnel, extraordinary costs etc.).

The reference years of the data are 2008 (to be collected in 2009, available October – December 2009) and 2009 (to be collected in 2010, available October – December 2010).

The population will be defined as follows: all enterprises who have indicated that their primary activity is “Fish processing”. Relevant list is kept by the Ministry of Agriculture, Fishery Economics Department.

In the case of the sample, the unknown data for the whole population will be estimated based on the average variables values of the sample.

The calculations of imputed value of unpaid labour will be estimated based on these employment estimators and collected through the questionnaires.

IV.B.2 Data quality

The table IV.B.2 reveals the details on the sampling methods used and on the methods used to assure the quality of the collected data.

Consistency and comparability for some economic variables will be ensured by using of official data sources. Results of questionnaires will be checked for consistency and comparability of the numbers. Extreme values which are wrong by evidence will be reviewed.

IV.B.3 Regional coordination

No.

IV.B.4 Derogations and non-conformities

No.

V. Module of evaluation of the effects of the fishing sector on the marine ecosystem

Evaluation of the effects of the fishing sector on the marine ecosystem will be carried out for the Estonian EEZ, as fishery in fishing other grounds by the Estonian fleet is limited, and therefore sampling is also limited. However, data concerning other regions will be collected and delivered, if needed, for the international use.

The surveys, which contribute to the collection of data for the calculation of ecosystem indicators, were specified in section III.G.1. In addition, indicators 1-4 can will be calculated for the gill-net test-fishing data available since 1992 (in one area) or 1993-97 (other permanent research areas).

VMS data will be available for North Atlantic fisheries from the Sea Inspectorate.

With reference to section III.B.1 of the NP Proposal (economic variables), describe how data on the value of the landings and fuel costs will be collected to allow calculation of ecosystem parameter 9.

VI. Module for management and use of the data

VI.A Management of the data

Central national database is EFIS (operated by the Ministry of Agriculture) which stores fleet data, fisheries permissions register, primary commercial fishery landings and first sell data as well as catch data for licensed recreational fishery. Most of data in EFIS are protected by passwords.

All fisheries data collected in frames of the National Programme as well as purely from national sources are stored in EMI in several separate databases. Currently, work is ongoing to join all databases of EMI (including fisheries databases) into a common system. As the first step, a meta-database of all available data (since the 1940s) is still under construction. This work is financed from other sources. Fisheries data since 2005 are in agreed format and easily accessible from the institute. Biological data collected by EMI in frames of DCR since 2005, including survey data and data of test fishing are included in EFIS.

Also, EMI has a database which includes NAFO observers' data on effort, catch composition, discards.

At the same time, serious efforts are needed (and are currently in progress) to improve the EFIS, Estonian Fisheries Information System (<https://kala.envir.ee/>). This system was transformed from the Ministry of the Environment to the Ministry of Agriculture since 1 January 2005. The improvements still needed include more customer-friendly system to get reports, data submission control system (data on logbooks are not always verified before entering in EFIS; the duration of trawling or days from the last check of the passive gear are missing in the database, or is missing the number of passive gears - which is probably due to the fact that these mandatory data are not submitted in logbooks or fishermen diaries). The improvements are under the way.

All data collected by EMI (both raw and aggregated) will be transferred to the Fish Resources Department, which will store them and make available in web. This department is also organizing additional modules to EFIS to include all, also not biological data, in EFIS.

Some of data collected in frames of DCR are submitted also into international databases (survey data, herring, sprat, salmon data etc – ICES working groups; test-fishing data in the reference area – HELCOM COBRA).

VI.B Use of the data

Production of sets of data to support scientific analysis as a basis for advice to fisheries management is based on data stored in the institute's databases or requested from EFIS.

Biological parameter estimates, preparation of sets of data for stock assessments and corresponding scientific analysis is done in EMI (for local stocks) or in ICES working groups or NAFO SC.

Table VI.B.1 contains a preliminary list of meetings for scientific advice support that will likely be attended by national experts.

VII. Follow-up of STECF recommendations

SGRN insists that all actions planned for the new DCR, regardless of any funding agenda issue, actually starts on the 1st of January 2009.	Accepted
MS are responsible for collecting the data on landings and discards for all the vessels flying their flag, wherever they fish, and provide data to the organisation responsible for advice and/or management	Landings and discards data are collected for all the vessels.
In case the landings occur in a non-EU country, MS shall do all necessary effort to organise the sampling	In the NAFO area, sampling will be done by observers on board (employed by EMI). No regular fishery in other areas.
On precision levels	The common tool to evaluate the precision of the biological parameters (COST project), will be available to the public early in 2009. This tool will be implemented.
MS are obliged to sample recreational fisheries of cod, salmon and bluefin tuna in EU waters	According to Appendix IV, 1), salmon, cod and eel should be sampled in the Baltic Sea (no recreational fishery in other regions). It will be done.
All MS are requested to collect calcified structures for stocks listed in Appendix XV whether they have the facilities to read them or not.	This is the case.
On the confusion on the interpretation of the requirement to triennially update the estimates of "Other biological parameters".	The common tool to evaluate the precision of the biological parameters (COST project), will be available to the public early in 2009. This tool will be implemented.
SGRN requests MS to clearly define the economic parameters collected under Module J of the DCR, with particular reference to fixed/capital costs.	All efforts will be done to meet this requirement

VIII. List of derogations

List of requests for derogations:

Short title of derogation	NP Proposal section	Derogation approved or rejected ¹	Year of approval or rejection of past requests for derogations
Non-participation in BITS I q survey		a	2005
Fishery-independent data collection (gill-net fishing in permanent research areas) (as well as monitoring of wild salmon rivers which is now included in DCR); also III.C.5,		a	Formally approved (has been a part of the Estonian NP since 2005)
No sampling metiers in the North Sea and Eastern Arctic, and in Other regions.	III.C.5		
Estonia will keep the annual sampling scheme for the species, which were sampled annually according to the requirements of the former DCR.	III.E.5		
Not sampling several stocks not fished by the Estonian fleet, or fished in very low quantities	III.E.5 North Atlantic; North Sea and eastern arctic; Other regions		

¹ Insert 'a' for approved or 'r' for rejected

IX. List of acronyms and abbreviations

EFIS	Estonian Fisheries Information System (a computerized database in the Fisheries Department, Ministry of Agriculture)
EMI	Estonian Marine Institute
WGBFAS	Baltic Fisheries Assessment Working Group (ICES)
WGBIFS	Baltic International Fish Survey Working Group (ICES)
WGBAST	Baltic Salmon and Trout Working Group (ICES)

X. Comments, suggestions and reflections

No.

XI. References

Saat, T.; Eschbaum, R.; Vetemaa, M.; Verliin, A. (2003). Ten years of coastal fish monitoring in Estonia: dynamics of fish assemblages and populations. In: ICES CM 2003/R:14: ICES Annual Science Conference; Tallinn; 2003. International Council for the Exploration of the Sea, 2003.

Thoreson. G. 1993. Guidelines for coastal monitoring. Kustalaboratoriet, Öregrund.