POLISH ANNUAL REPORT ON THE COLLECTION OF FISHERIES DATA FOR 2016

GDYNIA, 31ST MAY 2017

RYBACTWO I MORZE

MGMiŻŚ Ministerstwo Gospodarki Morskiej i Żeglugi Śródlądowej

ARiMR

Unia Europejska Europejski Fundusz Morski i Rybacki

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I. General framework

Polish Annual Report covers fisheries, biological, and economical sampling activities in 2016, collected within the Polish National Programme for the Collection of Fisheries Data for 2014-2016. Report was prepared in accordance with the *Guidance for the submission of Annual Reports on the National Data Collection Programmes under Council Regulation (EC) 199/2008, Commission Regulation (EC) 665/2008, and Commission Decision 2010/93/EU, Version for Annual Reports 2015 (January 2016)*. The Report provides an overview of planned and achieved sampling activities and outcomes as well as actions taken in case of any deviations from National Programme proposal. There were no methodological changes in sampling approach in 2016 compared to the year(s) before.

List of derogations is provided in standard table I.A.1
List of bilateral and multilateral agreements regarding data collection that are currently valid is provided in standard table I.A.2.

II. National data collection organization

II.A National correspondent and participating institutes

The National Correspondent representing Poland is:

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The following two institutions contribute to the National Programme (NP):

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The NMFRI (formerly the Sea Fisheries Institute in Gdynia - SFI), is the main executor of Data Collection Program and collects biological data from surveys-at-sea, from sampling commercial fishing vessels under Polish flag, from recreational fishery, from landings in Polish ports, as well as economic data from the fishing fleet, processing industry and aquaculture.

The Fisheries Department carries out Ministry's tasks for coordination of the implementation of CFP. The Fisheries Monitoring Centre (Centrum Monitorowania Rybołówstwa – CMR), a division of the Fisheries Department, collects the data on fishing effort and landings (data from logbooks, sales notes and VMS) and provides those data to the NMFRI.

In accordance with article 8(2) of the Commission Regulation 665/2008, the national DCF website was established, serving as a deposit for information related to the data collection framework (DCF): http://dcr.mir.gdynia.pl/.

No national coordination meetings were held in 2016 as the Program is solely realized by NMFRI.

II.B Regional and International coordination

II.B.1 Attendance of International meetings

The list of recommended and/or relevant international co-ordination meetings related to Polish fisheries activities with an indication of the meetings attended by Poland, is provided in standard table II.B.1.

The reference to the list of recommended or relevant coordination meetings included in NP is not applicable as the list of meetings in the last NP 2014-2016 was actually based on NP 2011-2013

(which was rolled-over for 2014-2016 due to delay in the new DCF legislation). A number of Working Groups, Workshops and other coordination meetings listed in the last NP does not exist anymore or were replaced in a meantime by others. Furthermore, in 2016, no list of recommended meetings and workshops were available at the DCF Webpage (https://datacollection.jrc.ec.europa.eu/recommended-meetings). Therefore, the standard table II.B.1 contains the list of 28 relevant coordination meetings Poland attended in 2016.

II.B.2 Follow-up of regional and international recommendations and agreements

Poland participates in the Regional Co-ordination Meetings (RCMs) for the Baltic, North Sea & Eastern Arctic and Long Distance Fisheries.

Following an analysis of recommendations from the 2015 Liaison Meeting only three recommendations were found relevant for Poland in 2016 (see Table II.B.2). Although, in general, recommendations from the RCMs addressed and endorsed by Liaison Meeting refer to actions required from MS in the year following the LM, Poland considered some of the recommendation endorsed by 2016 Liaison Meeting as relevant for actions to be taken in 2016 – those recommendations are also included in table II.B.2.

III. Module of the evaluation of the fishing sector

III. A General description of the fishing sector

The Polish fleet spent 74 thousand days at sea in 2016, 4% more than in 2015 but similar number of days that in 2014. The effort increased for small scale segments especially (0-10 and 10-12 meters) since the vessels between 12 and 24 meters reported lower number of days spent at sea with the exception of pelagic segment (VL1824TM). This segment as well as pelagic vessels of 24-40 meters length reported higher efforts by 25% and 10% respectively. This was a result of increased interest of the Polish fishing fleet in catching of small pelagic species due to good sprat and herring prices and poor condition of cod stocks on the other hand. The total amount of landing income generated by the Polish Baltic fleet in 2016 was €51 million (preliminary figure). The income increased by 5% compared to 2015 mainly as a result of high growth of value of herring and flatfish landings (25% and 43%). The value of cod landings decreased by 23%.

III. B Economic variables

III.B Baltic Sea, North Sea, Eastern Arctic, North Atlantic (Supra region)

III.B.1 Achievements: Results and deviation from NP proposal

Fisheries economic data has been produced using two main sources of primary information: administrative documents (fishing logbooks, landing declarations, first sale documents) and statistical questionnaires filled out by fishing vessel owners.

Followed previous years, due to confidentiality reasons deep sea trawlers segment (distant-water fleet) were excluded from economic analysis (data were collected but could not be reported). In 2015 this segment consisted of 3 very characteristic vessel (one fishing in North Atlantic and two operating in other fishing region), what makes impossible to report data without identifying them and infringe the law on data confidence nor combine them with other vessel's segments.

Methods used for collecting data adhere to these planned in the NP proposal.

Economic Clustering of fleet segments

The final economic clustering is slightly different from NP proposal. All segments, except *passive gears 10-12 m, drift and fixed netters 12-18 m and pelagic trawlers* 18-24 m were clustered. 11 *demersal trawlers 10-12 m and 1 pelagic trawler 12-18 m* were added to the segment *demersal trawlers and seiners 12-18 m* (initially clustered with *demersal trawlers and seiners 18-24 m*). A new cluster *demersal trawlers and seiners 18-24 m* appeared consisting of *demersal trawlers and seiners 18-24 m demersal trawlers and seiners 24-40 m, vessels using active and passive gears 12-<18 m and vessels using active and passive gears 18-<24 m*. Cluster *pelagic trawlers 24-40 m* was divided into two separate segments: *pelagic trawlers 18-24 m* and clustered segment *pelagic trawlers 24-40 m* (*pelagic trawlers 24-40 m* and one vessel *pelagic trawlers over 40 m*, which, after rebuilding, slightly exceeded 40 m). Clusters *passive gears 0-10 m* remained unchanged as proposed in NP.

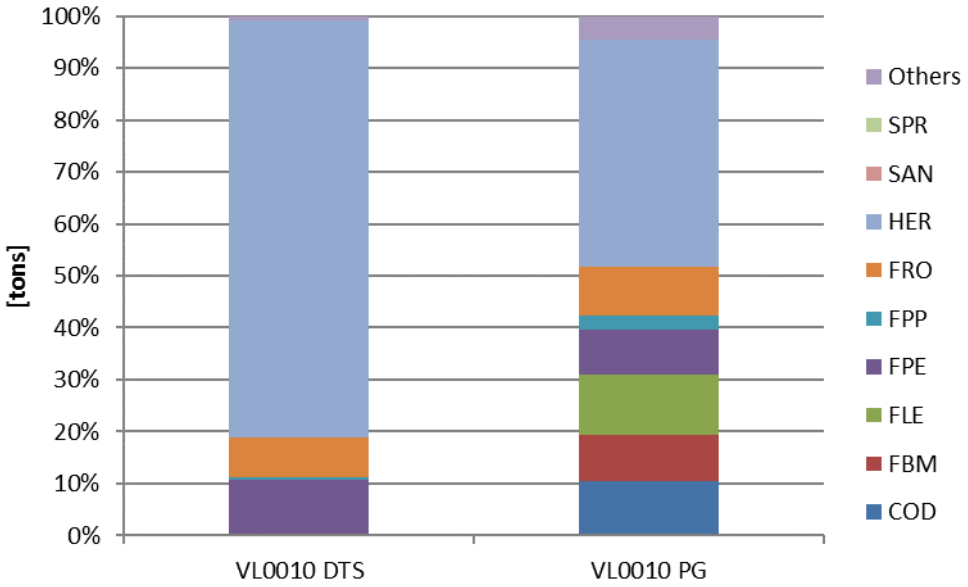
Table 1. III B 1 Share of catches volume of clustered segments, 2015.

Segments - clustered	Segments - before clustering	tons	%	type of segment
AREA27 DTS VL1218	VL1012 DTS	1 506	8%	S
	VL1218 DTS	16 610	91%	I
	VL1218 TM	221	1%	N
AREA27 DTS VL1218 total		**18 336**	**100%**	
AREA27 DTS VL1824	VL1824 DTS	11 765	80%	S
	VL2440 DTS	2 308	16%	I
	VL1824 PMP	586	3%	N
	VL1824 PMP	69	1%	N
AREA27 DTS VL1824 total		**14 729**	**100%**	
AREA27 PG VL0010	VL0010 DTS	64	1%	N
	VL0010 PG	8 747	99%	I
AREA27 PG VL0010 total		**8 811**	**100%**	
AREA27 TM VL2440	VL2440 TM	65 850	90%	I
	VL40XX TM	7 428	10%	S
AREA27 TM VL2440 total		**73 279**	**100%**	

S- segments similar to other segments; N – Non-important segments with distinct characteristics; I- Important segment with distinct characteristic

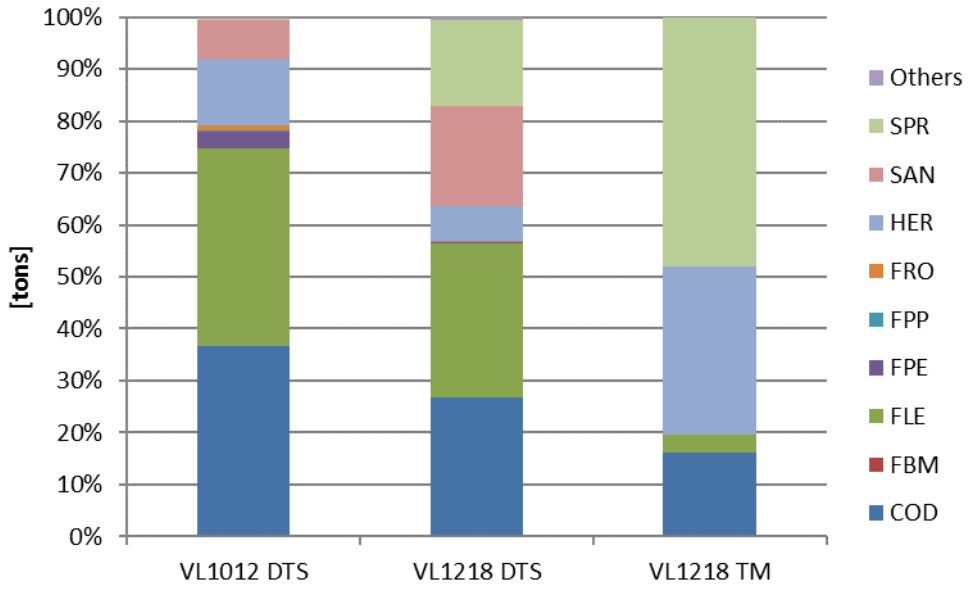
Passive gears 0-10m (VL0010 PG)

One vessel mostly using bottom trawl was merged with P*assive gear 0-10 m* vessels segment consisting of 509 units. This vessel accounted for only 0,7% of the total catches of the whole cluster (2015) and targeted herring (*Clupea harengus* - 80%) and flatfish – (19%).



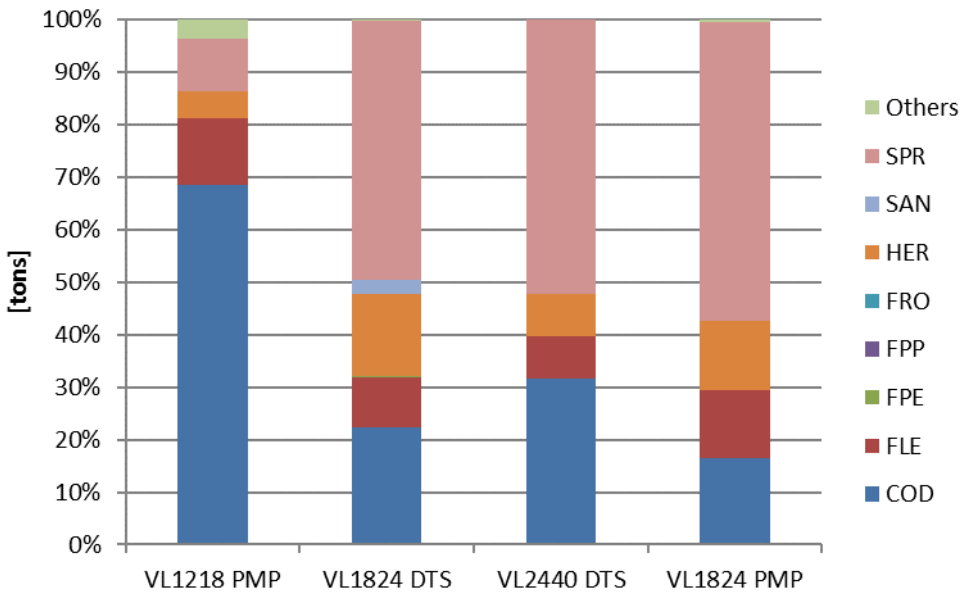
Demersal trawlers and seiners 12-< 18 m (VL1218 DTS)

The clustered segment consisted of 69 vessels. *Demersal trawlers and seiners 12-< 18 m* segment had dominant role (90,5% of total cluster catches). The species composition of catches of segment *demersal trawlers and seiners 10-< 12 m* in this cluster was similar form to the dominant segment and characterized by similar technical parameters. Segment *pelagic trawlers 12-<18 m* was oriented on pelagic species. Vessels from this clustered segment targeted mostly flatfish (30%) and cod (*Gadus morhua* 25%).



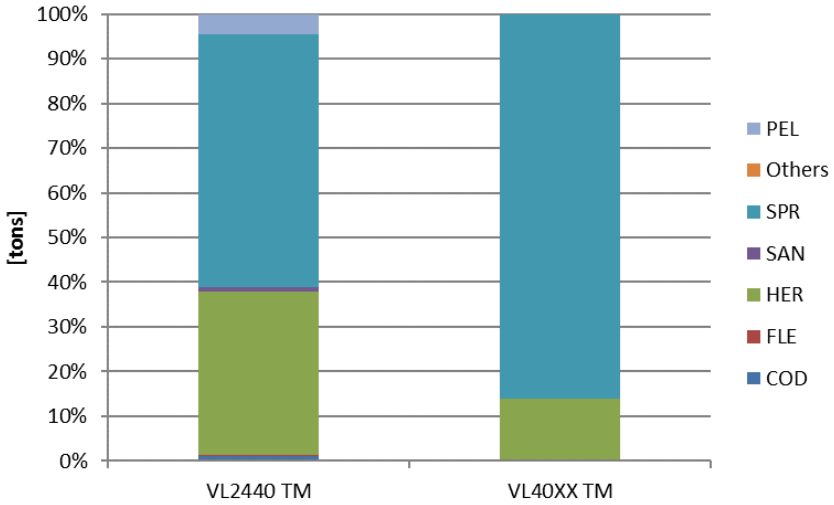
Demersal trawlers and seiners 18-< 24 m (VL1218 DTS)

38 vessels belonged to this cluster in 2015 out of which 31 were *Demersal trawlers 18-< 24 m* and 4 *Demersal trawlers 24-< 40 m.* New segments in this cluster were one ship belonging to the segment *Vessels using active and passive gears 12-<18 m* and 2 ships from segment *Vessels using active and passive gears 18-<24 m*. 51% of cluster catches was sprat (*Sprattus sprattus)* and 20% cod (*Gadus morhua).*



Pelagic trawlers 24-40 m (VL2440 TM)

The clustered segment consists of 41 vessels belonging to two segments: *Pelagic trawlers 24-< 40 m* (40 vessels) and *Pelagic trawlers over 40 m* (1 vessel, which used to be part of the segment 24-40, but after rebuilding exceeded 40 m. Almost whole catches in this cluster were pelagic species – *Sprattus sprattus* (64%) and *Clupea harengus* (33%).



Estimation of capital value and capital costs

In order to ensure consistency with data provided for previous years, taking into consideration a specific situation of Polish fisheries (subject of severe capacity reduction program), premiums paid by government for scrapped vessels were taken into account when calculating invested capital. Council Regulation 2792/1999 method of calculation of premium rates was used to determine scrapping value of the vessels. Following the regulation method, capital value of vessels from 16 to 29 years old was

depreciated by 1,5 % annually and value of vessels of 30 years old or more decreased by 22,5 %. It is believed that this approach of capital value calculation reflects better value of capital invested in the sector compared to other indicators based on insurance value, book value or replacement value (as well as information collected from questionnaires) which are usually even several times lower than the scraping premiums.

Values used for estimation of capital invested in Polish fleet (according to CR 2792/99)

TABLE 1

Category of vessel by tonnage (GT)	EUR
0 < 10	11 000/GT + 2 000
10 < 25	5 000/GT + 62 000
25 < 100	4 200/GT + 82 000
100 < 300	2 700/GT + 232 000
300 < 500	2 200/GT + 382 000
500 and above	1 200/GT + 882 000

Since 50% of the fleet capacity has been already withdrawn with public assistance, it is considered that financial compensation has significant influence on capital value (market value of second hand vessels). This as well has influenced depreciation, which is considered to be better reported through questionnaires.

Because of scarce of information about costs of construction of new vessels in Poland we failed to applied a PIM methodology, due to a very low number of vessels that has been constructed recently.

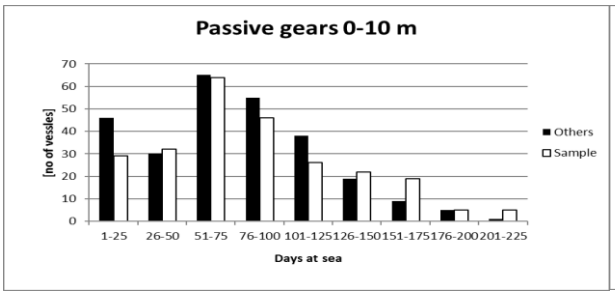
III.B.2 Data quality: Results and deviation from NP proposal

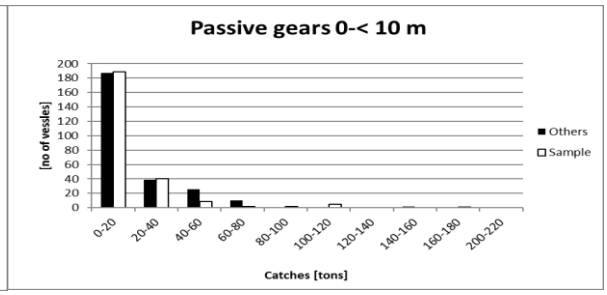
No deviation compared to NP proposal took place.

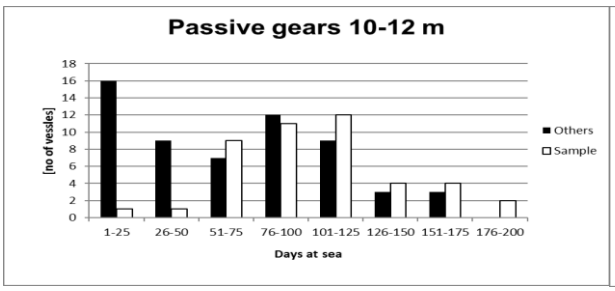
In accordance with national regulations, each vessel's owner is legally bound to fill out a questionnaire regarding the economic results of the fishing vessel. In order to ensure the maximum number of questionnaires is received, similarly to previous years reminders of the obligation to file them were sent by registered mail and phone calls were made to execute the obligation. Recommendations of the Lisbon DCF workshop on "statistical issues related to the collection of economic data within the DCF" (i.e. closer cooperation with PO) were taken into account to deal with the non-response problem. As the number of returned questionnaires did not reach a plan of respond rate, calculations were made, based on the questionnaires received. Economic data received does not usually exceed 70% of respond rate. However all responses were of random character (probability sample), which should ensure the representativeness of the sample. Response rates are provided in an Excel table.

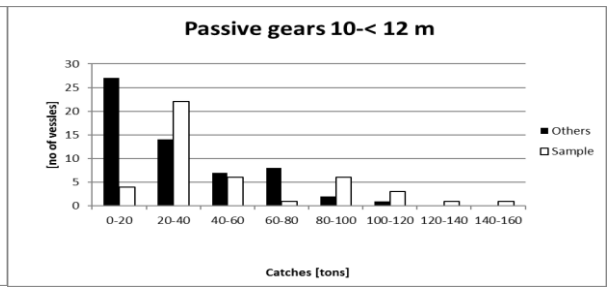
Representativeness

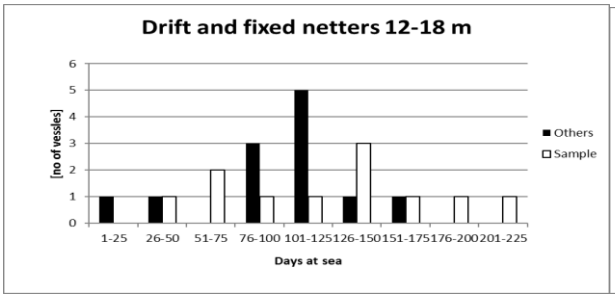
There is no standard approach implemented on how the representativeness of the data can be evaluated. An analysis of the frequency distribution of two variables: volume of catches and effort (days at sea) was performed to check similarity between the sample and the total population. The results presented on graphs below show that there is a little difference between sampled group of vessels and the total population. Species composition of catches by segment confirms also good similarity.

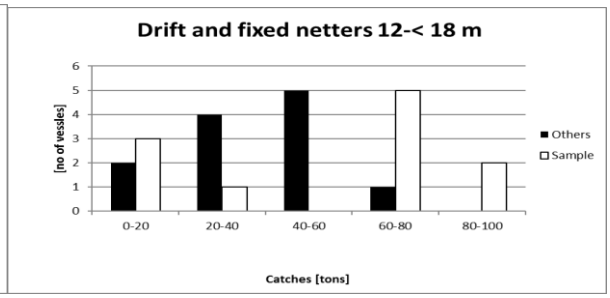

Passive gears 0-10 m
[no of vessles]
Days at sea
1-25
26-50
51-75
76-100
101-125
126-150
151-175
176-200
201-225
Others
Sample

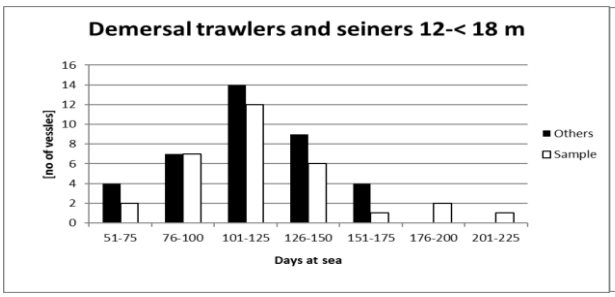

Passive gears 0-< 10 m
[no of vessles]
Catches [tons]
0-20
20-40
40-60
60-80
80-100
100-120
120-140
140-160
160-180
200-220
Others
Sample

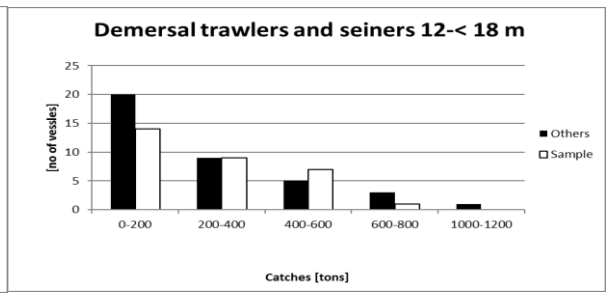

Passive gears 10-12 m
[no of vessles]
Days at sea
1-25
26-50
51-75
76-100
101-125
126-150
151-175
176-200
Others
Sample

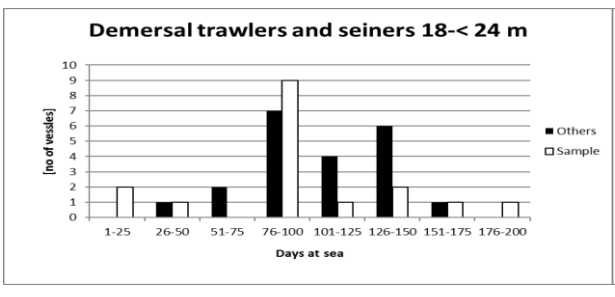

Passive gears 10-< 12 m
[no of vessles]
Catches [tons]
0-20
20-40
40-60
60-80
80-100
100-120
120-140
140-160
Others
Sample

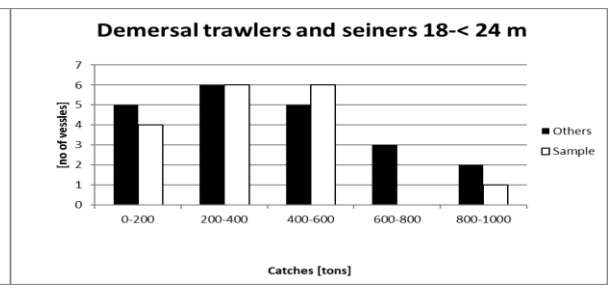

Drift and fixed netters 12-18 m
[no of vessles]
Days at sea
1-25
26-50
51-75
76-100
101-125
126-150
151-175
176-200
201-225
Others
Sample

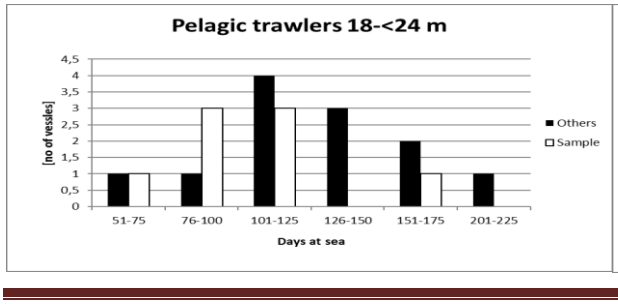

Drift and fixed netters 12-< 18 m
[no of vessles]
Catches [tons]
0-20
20-40
40-60
60-80
80-100
Others
Sample

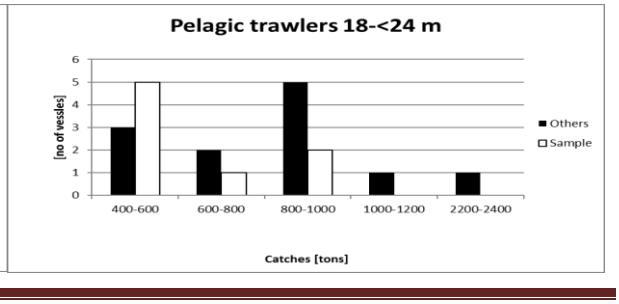

Demersal trawlers and seiners 12-< 18 m
[no of vessles]
Days at sea
51-75
76-100
101-125
126-150
151-175
176-200
201-225
Others
Sample

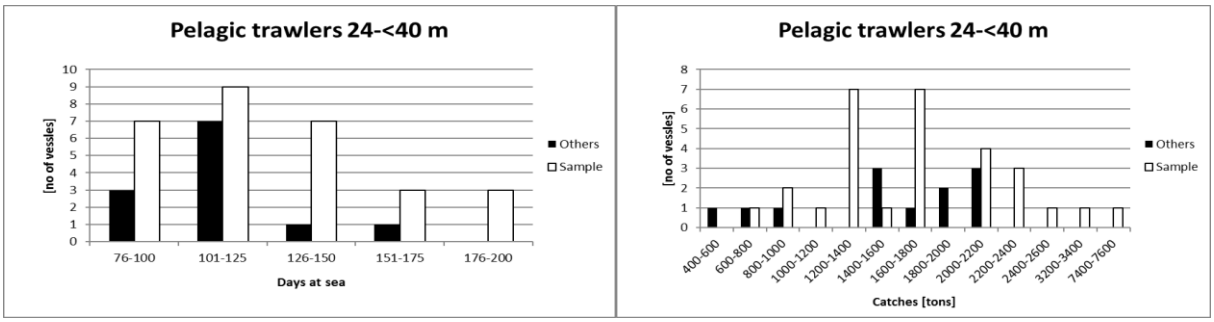

Demersal trawlers and seiners 12-< 18 m
[no of vessles]
Catches [tons]
0-200
200-400
400-600
600-800
1000-1200
Others
Sample


Demersal trawlers and seiners 18-< 24 m
[no of vessles]
Days at sea
1-25
26-50
51-75
76-100
101-125
126-150
151-175
176-200
Others
Sample

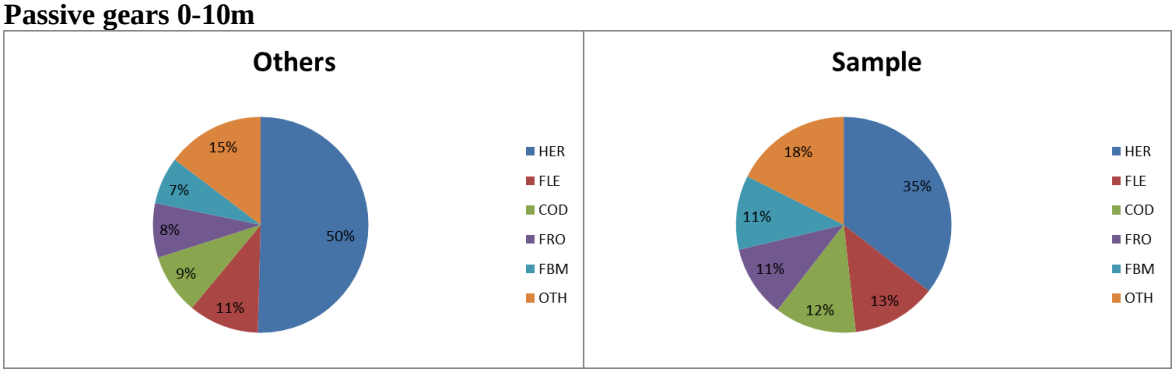

Demersal trawlers and seiners 18-< 24 m
[no of vessles]
Catches [tons]
0-200
200-400
400-600
600-800
800-1000
Others
Sample


Pelagic trawlers 18-<24 m
[no of vessles]
Days at sea
51-75
76-100
101-125
126-150
151-175
201-225
Others
Sample

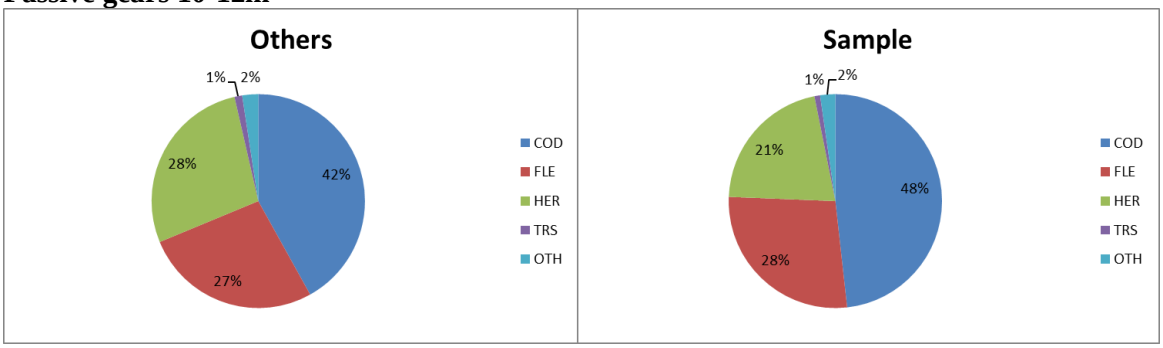

Pelagic trawlers 18-<24 m
[no of vessles]
Catches [tons]
400-600
600-800
800-1000
1000-1200
2200-2400
Others
Sample



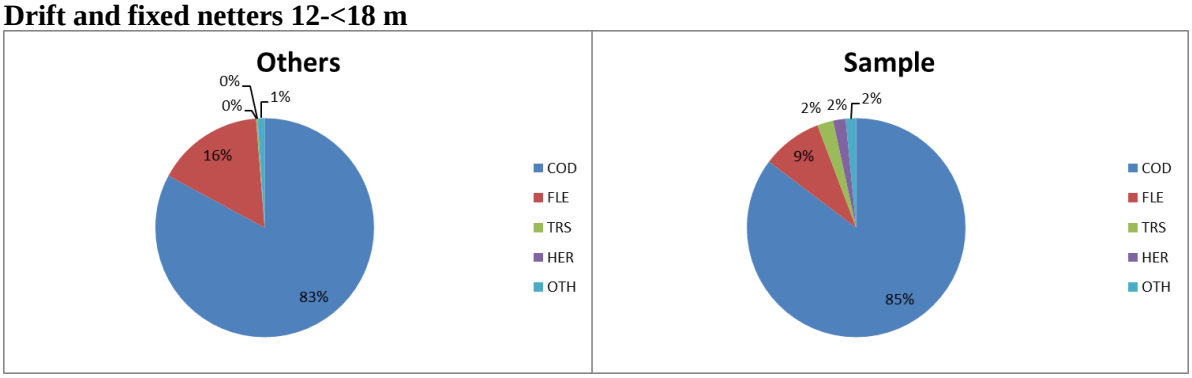
Passive gears 0-10m



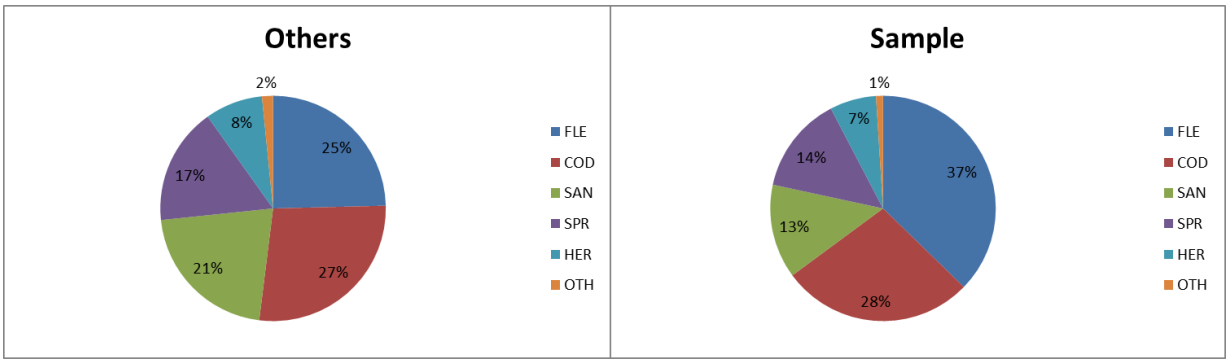
Passive gears 10-12m



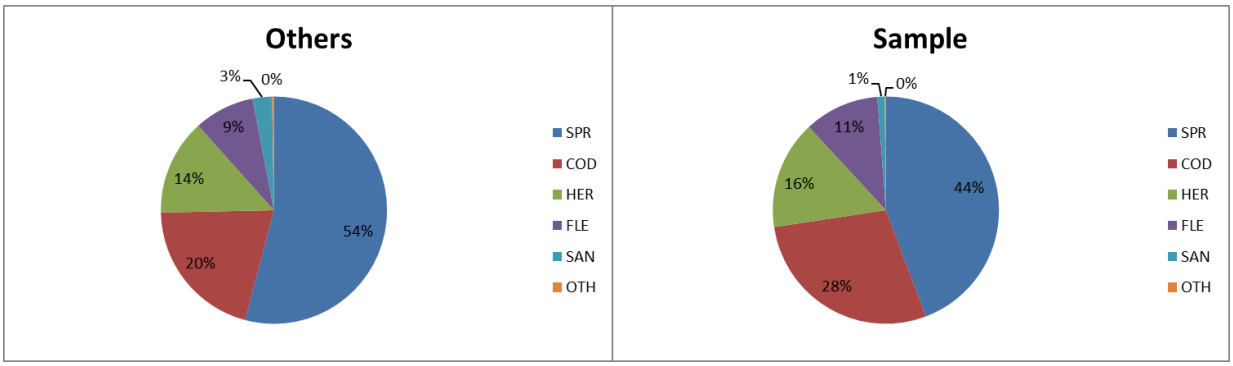
Drift and fixed netters 12-<18 m



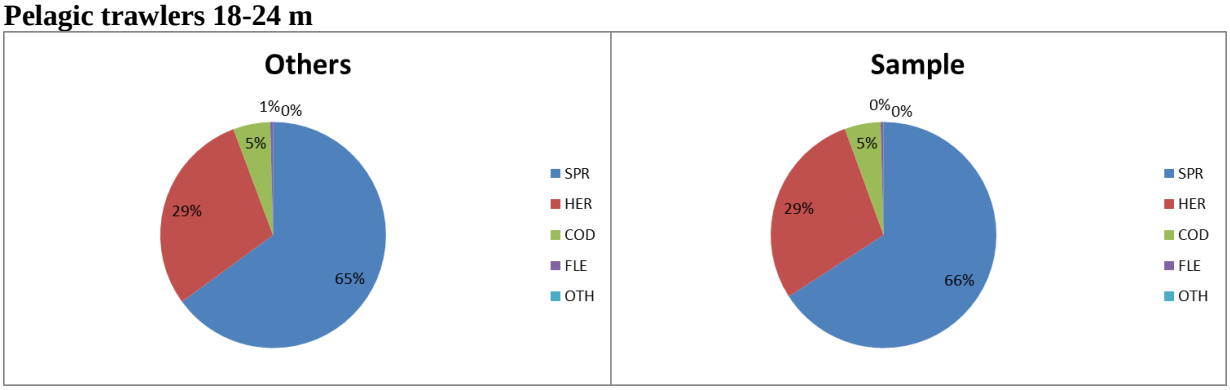
Demersal trawlers and seiners 12-< 18 m



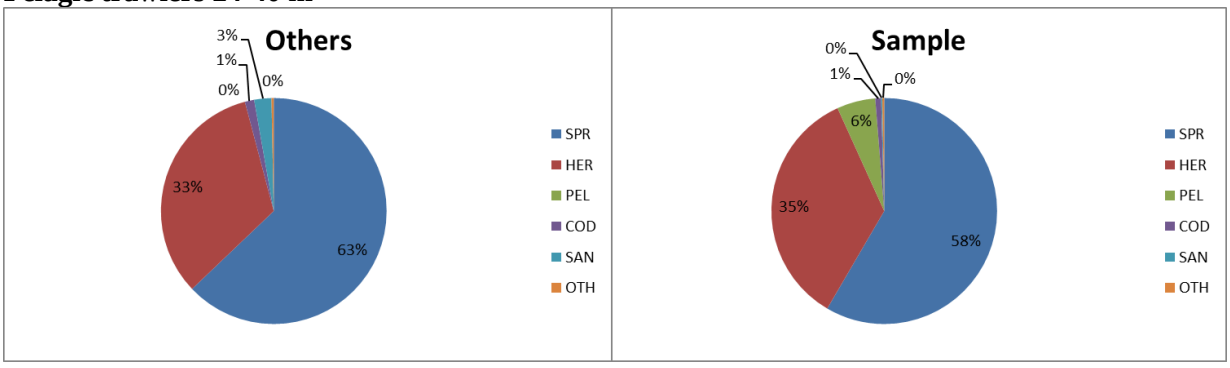
Demersal trawlers and seiners 18-< 24 m



Pelagic trawlers 18-24 m



Pelagic trawlers 24-40 m



III.B.3 Actions to avoid deviations

As no major shortfalls were observed, thus no action was required..

III.B Other regions

III.B.1 Achievements: Results and deviation from NP proposal

Following information provided in previous years, due to confidentiality reasons deep-sea trawlers segment, fishing in areas 27, 34, 47 and 87, were excluded from economic analysis. Complete data were collected but cannot be reported. In 2015 this segment consisted of 3 very characteristic vessels only, what makes impossible to report data without identifying them and infringe the law on data confidence.

III.B.2 Data quality: Results and deviation from NP proposal

No deviation compared to NP proposal took place.

III.B.3 Actions to avoid deviations

Not applicable

III.C Metier-related variables

In 2016 the "Metier Based" sampling strategy was applied. For information on the number of sampled trips and achieved length sampling during the sampling year, refer to Tables III.C.3 and III.C.6 respectively. For information on the number of trips planned to sample in 2015, refer to Table Tables III.C.4.

The NP 2014-2016 was approved by the Commission Implementing Decision of 30.8.2013 *extending the national programmes for the collection of primary biological, technical, environmental and socio-economic data in the fisheries sector for the period 2011-2013 to the period 2014-2016 [C(2013) 5568 final]*. In order to enable a smooth transition to the new framework for data collection and a continuity in the collection of these data, Commission adopted Polish National Programme 2014-2016 on the basis of the contents of the Polish National Programme 2011-2013, in the version most recently approved by the Commission – which was the version of NP 2012. Consequently, in order to avoid substantial changes to NP and to secure continuity, the reference period used *i.a.* for identification and selection of metiers for sampling (see Table Tables III.C.1) and applied in case of both the National Programme 2014-2016 and Annual Report 2016 is the same as the one applied in the National Programme 2012. The information used for metiers ranking were obtained from logbooks (for fishing vessels over 8 m in length), monthly catch reports (for fishing boats below 8 m in length) and from the sales notes.

III.C Baltic Sea

III.C.1 Achievements: Results and deviation from NP proposal

Sampling of fishing trips:

For métiers FPO_FWS_>0_0_0 and GNS_FWS_>0_0_0 in SD 22-24 seven at sea sampling trips each were planned and sampled. Additionally, in SD 22-24 five trips for FPO_FWS_>0_0_0 (targeting *Anguilla anguilla*) were sampled on shore in order to achieve sufficient biological data for stock-related variables.

For métier FPO_FWS_>0_0_0 in SD 25-32 seven at sea sampling trips were planned and sampled. Additionally, three trips for this métier (targeting *Anguilla anguilla*) were sampled on shore in order to achieve sufficient biological data for stock-related variables. For métier GNS_FWS_>0_0_0 in SD 25-32 (targeting *Sander lucioperca*) seven at sea sampling trips were planned but five trips were sampled and, to compensate this shortfall, three trips for this métier were sampled on shore.

Nine trips for GNS_ANA_>157_0_0 métier targeting *Salmo trutta* in SD 25-32 were planned to sample on shore. Sampling of this métier was arranged through self-sampling, based on agreements with fishermen. Such sampling approach was applied due to the fact that *Salmo trutta* fishery is characterized by a great number of commercial fishing trips conducted by small boats (not capable of carrying observers for safety reasons), usually with low individual catch. Therefore, the self-sampling approach proved to be the most efficient way to collect the required data. As the result of such an approach, in total data from 28 trips of this métier were collected within the planned budget.

Ten trips of LLD_ANA_0_0_0 métier (targeting *Salmo salar)* were sampled at sea and one trip on shore in SD 25-32, as compared to eight at se trips planned, in order to achieve sufficient biological data for stock-related variables.

Demersal métiers (OTB_DEF, GNS_DEF, LLS_DEF) selected by the ranking system for sampling separately in SD 22-24 and 25-32 were, in general, undersampled as compared to plan in both Subdivisions. These demersal métiers are targeting *Gadus morhua* and flatfishes (mainly *Platichthys flesus*).

The main reasons for not achieving the planned number of trips sampled for SD 22-24 (similarly to years 2011-2015), were low level of the *Gadus morhua* TAC (further reduced in 2016) and its utilization in 2016 (57%) and significantly reduced total number of commercial fishing trips as compared to the reference period (by 45% in case of OTB_DEF, by 40% in case of GNS_DEF and as much as by 89% in case of LLS_DEF), which resulted in significant reduction of number of trips available for sampling.

Out of 10 and five trips planned to be sampled at sea and on shore respectively for the métier OTB_DEF in SD 22-24 only nine trips were sampled on shore. In total, 15 trips at sea and five trips on shore were planned for sampling OTB_DEF in SD 25-32, whereas 14 trips at sea and seven trips on shore were actually sampled, *i.e.* in total one trip in excess of NP in order to compensate for undersampling in SD 22-24.

For métier GNS_DEF, total of 20 trips were planned for sampling on shore in SD 22-24, out of which 13 trips were sampled. In SD 25-32, nine out of planned 10 trips were sampled on shore and 8 trips were sampled at sea (out of 10 trips planned).

For LLS_DEF métier, targeting *Gadus morhua,* five trips in SD 22-24 and 10 trips in SD 25-32 were planned to be sampled on shore. No trips were sampled in SD 22-24 due to the reasons explained above (only 20 commercial fishing trips in 2016). In SD 25-32, in total only five trips were sampled. The shortfall again was due to low level of quota utilization (79% only in case of *Gadus morhua* quota) and decreased fishing activity with the use of this métier (total number of trips with the use of LLS_DEF métier in 2016 was lower by 89% in SD 22-24 and by 75% in SD 25-32 as compared to the reference years).

In addition to sampling the métiers identified in NP, one more métier was sampled in 2016 (like in previous year), *i.e.* OTM_DEF_0_0_0 targeting *Ammodytes tobianus* due to dramatic increase of this fishery in recent years. One at sea trip was sampled to collect biological data.

For the **pelagic métier** OTM_SPF_32-104 used in fishery targeting *Clupea harengus* in SD 22-24 four trip were sampled at sea and three trips were sampled on shore, as compared to planned sampling of three trips on shore and three trips at sea.

For OTM_SPF_32-104 métier, targeting *Clupea harengus* in SD 25-32, total of 18 trips were sampled (13 trips on shore and 5 trip at sea), as compared to 18 trips planned (12 trips on shore and 6 trips at sea respectively).

Although total of 6 trips were planned to sample the merged OTB/PTB_SPF_32-104 métier targeting *Clupea harengus* in SD 25-32 (two at sea and four on shore trips), no trip were sampled in 2016 due to significant decline in the use of these gears in the *Clupea harengus* fishery. Despite the attempts

made to arrange sampling of this métier, none of the vessels' owners contacted declared the intention to use one of those fishing gear. Usually vessels' operators start fishing with pelagic trawl (OTM_SPF) and occasionally change the gear to OTB_SPF in the course of the fishing trip, which makes the sampling of this métier very difficult or impossible. Only 38 commercial fishing trips using this métier were recorded in 2016 – a reduction by 95% as compared to the reference years.

For FPO_SPF_>0_0_0 métier, all three planned trips were sampled on shore in SD 22-24. Out of six trips planned for sampling on shore in SD 25-32, only three trips were actually sampled. This shortfall was mainly caused by the decline of this type of fishery in SD 25-32 in the sampling year (reduction by 35% in number of trips compared to the reference years).

For GNS_SPF_32-109 métier in SDs 22-24 all three planned trips were sampled. Out of 6 trips planned for sampling on shore in SD 25-32, only two trips were actually sampled. This métier in SD 25-32 is used in Vistula Lagoon to fish *Clupea harrengus* and in 2016 (same as in 2015) fishing season was very intensive but short and most of the fish caught were pre-sold (sold before landings) making sampling extremely difficult.

For OTM_SPF_16-31_0_0 métier targeting *Sprattus sprattus* in the ICES SD 22-24 six trips were planned and seven trips were sampled on shore and, additionally, one trip was sampled at sea to follow up the increased fishery (104 commercial trips in 2016 as compared to 28 trips in 2015) and to compensate slight undersampling in SD 25-32. In SD 25-32, 11 trips at sea and 13 trips on shore were sampled, i.e. shortfall of three trips sampled on shore and one at sea when compared to plan. This shortfall resulted from the limited availability of fish to sample at the end of the third and in the fourth quarters of the year (reduced landings, full utilization of individual quotas and/or landed fish were pre-sold).

III.C.2 Data quality issues

The "Metier Based" sampling strategy was applied. There were no deviations from the sampling methods used for collecting data. In some cases, there were deviations in sampling intensity for given metier (as described in section III.C. 1 above) but those deviations were the result of a changed fishing pattern in the sampling year, thus reflected the actual performance of the fishery.

III.C.3 Actions to avoid deviations

Shortfalls described in sections III.C.1 were unavoidable due to the changes in the fishing pattern in 2016 as compared to previous years. Sampling scheme needs to be adjusted according to fishing spatial and temporal distribution and, therefore, more direct contacts and dialogue with fishing industry is in place.

III.C North Sea and Eastern Arctic

III.C.1 Achievements: Results and deviation from NP proposal

Only one vessel under the Polish flag conducts fishing in areas I and II directed to either *Gadus morhua* or *Pollachius virens*.
Only one trip for one metier were planned to sample by Poland in ICES area I, II in 2016 sampling year – i.e., DEF_>120_0_0 targeting *Gadus morhua* , and this target was met.

In total, 15'805 fish representing 35 species fished by Polish vessel in the Eastern Arctic (areas I and II) in 2016 were measured for length, including 6'120 individuals of *Gadus morhua*.

III.C.2 Data quality issues

The "Metier Based" sampling strategy was applied. There were no deviations from the NP.

III.C.3 Actions to avoid deviations

No action required.

III.C Other regions

III.C.1 Achievements: Results and deviation from NP proposal

CECAF

Sampling in CECAF area in 2016 was arranged through agreed joint sampling programme.

Following RCM LDF 2011 recommendation, Poland signed to "*Multi-lateral agreement between Germany, Latvia, Lithuania, The Netherlands and Poland for biological data collection of pelagic fisheries in CECAF waters"*. The original agreement, signed in 2011, provided for joint sampling programme over two years period, ending 31 December 2013. In 2014 an amendment to that agreement was signed extending it for another two years period, ending 31 December 2015 and in 2015 a new amendment was signed extending an agreement to 31 December 2016 – see Annex 5 and standard Table I.A.2.

The above joint sampling programme is coordinated by the Netherlands. Sampling activities and achievements are to be described in the Netherlands' Annual Report 2016.

SPRMFO

Sampling in SPRMFO area in 2016 was arranged through agreed joint sampling programme.

Following RCM LDF 2013 recommendation, Poland signed in 2015 to *"Multi-lateral agreement between the responsible institutions of Germany, Lithuania, The Netherlands and Poland for biological data collection of pelagic fisheries in SPRFMO waters"*. The agreement provides for joint sampling programme over two years period, ending 31 December 2016 – see Annex 6 and standard Table I.A.2.

The above joint sampling programme is coordinated by the Netherlands. Sampling activities and achievements are to be described in the Netherlands' Annual Report 2016.

In 2016 a new "*Multi-lateral agreement for 2017 and 2018 between Germany, Lithuania, The Netherlands and Poland for biological data collection of pelagic fisheries in SPRFMO waters"* was agreed, with Poland taking over coordination of the sampling program – see Annex 7 and standard Table I.A.2.

III.C.2 Data quality issues

In case of both CECAF and SPRMFO areas, sampling in 2016 were arranged through agreed joint sampling programmes, coordinated by the Netherlands. Sampling activities and achievements are to be described in the Netherlands' Annual Report 2016.

III.C.3 Actions to avoid deviations

No action required.

III.D Recreational fisheries

III.D Baltic Sea

III.D.1 Achievements: Results and deviation from NP proposal

According to Polish NP for 2016 only *Gadus morhua* recreational fishery were sampled in the Baltic Sea.

All 12 planned trips of recreational fishing were sampled.

III.D.2 Data quality issues

The recreational fishery for cod (*Gadus morhua)* in Poland is monitored using effort information (number of angling trips in sampling frames - ICES Subdivision and quarter) provided by Harbour Master Offices and mean weight of cod calculated from on-board observed trips. By raising sample mean weight of the anglers catch from observed trips in a given stratum by the known number of trips at the population level, the total recreational catch of *Gadus morhua* is obtained.

Four types of data were collected in order to monitor the development of *Gadus morhua* recreational fisheries and to estimate the catch level.

1. Data on the number of recreational sea-going trips and the number of anglers participating at those trips were collected from Harbour Master Offices' registers.

2. Data on total weight of fish caught and biological data (length, weight, sex, maturity and age) were collected and processed from angling trips with observers on-board.

3. Daily reports of recreational catch delivered to regional inspectorates of marine fisheries by owners of charter boats (mandatory catch reporting since March of 2015 following new fishery act, data under evaluation).

4. Interviews with anglers (questionnaires' survey) during on-board observer trips.

Data on number of recreational sea-going trips and the number of anglers participating at those trips collected from Harbour Master Offices' registers are the comprehensive data source on marine recreational fisheries status. Each angling vessel's departure, including number of anglers on-board, is recorded in Harbour Master Offices' documents. However, data on number of recreational fishing trips in the whole 2016 can be collected from Harbour Master Offices in 2017. At the time of preparation of current AR, data on total number of these trips in 2016 were incomplete. Data from one minor harbour for 2016 were not collected and the figure for 2015 for that harbour was used instead. Therefore, for the métier used in the recreational fishery, the figure of 9897 for "*Total No. of fishing trips during the Sampling year*" given in standard Table III.C.3 represents the best estimation available. Nevertheless, data for 2016 clearly indicate that the total number of recreational fishing trips decreased since 2015.

Main purpose of on-board observed trips was to measure the length and weight of each fish caught in order to determine the whole catch of fish during given trip (part of the catch was also sampled for other biological data - sex and age). This allows for estimating the total catch applying raising method by number of trips recorded by Harbour Master Offices.

Vessels for on-board observer trips are selected randomly. However, this is possible only for vessels above certain size having enough space to take more than 8-10 anglers. In this context, the WGRFS, in its 2014 report, noted that vessel selection is not fully random and small boats (of the length of a few meters) are not covered by on-board sampling creating potential bias of the total catch estimate and biological information collected. It also noted that sampling does not cover cod angling from the beaches, however that kind of fishing methods contribute only little to the total catch. WGRFS concluded that, overall, these data are of good quality, but may be biased and are likely to represent an underestimate of the total recreational catch.

III.D.3 Actions to avoid deviations

In order to reduce the potential bias regarding data quality (section III.D.2 above), in 2015 and 2016 the monitoring of the *Gadus morhua* recreational fisheries was extended by supplementary questionnaires' survey and recreational catch data from charter boats' daily reports.

III.E Stock-related variables

The planned and achieved sampling is summarized in Table III.E.3.

III.E Baltic Sea

III.E.1 Achievements: Results and deviation from NP proposal

According to NP, Poland should sample 13 stocks in the Baltic Sea.

Clupea harengus SD22-24: There were a slight shortfall in sampling biological variables for this stock. This species was under-sampled only by 6%, thus within an acceptable limits.

Clupea harengus SD 25-32: This stock was oversampled for biological variables, but with acceptable limits (by 31%).

Sprattus sprattus SD22-32: Baltic sprat was sampled in excess of the planned level (excess of 1996 specimens, *i.e.* by 59%), mainly due to the fact that on top of age sampling from commercial fishery, over 1500 sprat individuals were sampled for age/weight during the surveys.

Gadus morhua SD22-24: Baltic cod stock SD22-24 was significantly undersampled by 63% in terms of number of fish measured for length, weight, sex, age and maturity. The main reason for the shortfall (similarly to the previous year) were low level of the cod TAC and its utilization in 2016 in SD 22-24 (57%) and overall dramatic decrease in cod fishery (as compared to the reference years) which resulted in limited number of trips available for sampling.

Gadus morhua SD25-32: Cod stock SD25-32 was oversampled, which was mainly caused by an intensive sampling at sea (including over 1000 cod individuals sampled during the surveys) and did not resulted in additional cost which would lead to budget excess. Additionally, a high sampling level for this cod stock (being the main cod stock for the Polish fishery) was caused by the need to achieve high number of weight@length ratio for individuals in order to get the reliable weight-length relationship, which is the issue of growing concern in the light of the decrease in individual growth rate for Baltic cod. Thus numerous and reliable data are required to investigate this issue.

Platichthys flesus SD22-32: Flounder was sampled in excess of the planned level (by 74%), due to the fact that on top of age sampling from commercial fishery, over 1600 individuals were sampled for age/weight during the BITS surveys.

Pleuronectes platessa SD22-32: Plaice was sampled in excess of the planned level, due to unexpectedly high abundance of plaice caught in the control hauls during the BITS-1Q and BITS-4Q surveys (in total 1631 specimens, out of which 969 individuals were taken for age sampling).

Scophthalmus maximus SD22-32: (old name *Psetta maxima)* Turbot was also sampled in excess of the planned level due to intensive sampling at sea (including 36 individuals taken for age sampling during surveys).

Salmo salar SD22-31: Salmon was sampled in excess of the planned level (by 94%) due to its abundance in observed trips, from which all fish caught were taken for biological analysis.

Salmo trutta SD22-32: There was a significant shortfall in sampling Sea trout (by 73%) due to the fact that it was not possible to obtain sufficient number of fish, both from self-sampling or from the market, to achieve the target.

Perca fluviatilis IIId: This species was under-sampled by 32%. The reason for this under-sampling is that on shore samples are purchased from fishermen by weight and are presented in boxes, with unknown number and size/weight of individual fish in a box.

Sander lucioperca IIId: This species was oversampled by 6% only, thus within an acceptable limits

Anguilla anguilla IIIb-d: There were slight shortfall in sampling biological variables for European eel. This species was under-sampled by 19% only, which is within an acceptable limit concerning the evaluation of biological variables. The reason of this under-sampling is mainly caused by the fact that in order to obtain sufficient amount of fish for biological sampling, samples of eel of given weight must be pre-ordered and all eel caught by contracted fishermen must be picked up. Under-sampling occurs when sample contains more bigger sized fish than expected.

III.E.2 Data quality issues

The "Metier Based" sampling strategy was applied. There were no deviations from the sampling methods used for collecting data. In some cases, there were deviations in sampling intensity for particular stock related variables, reason of which is described in section III.E.1 above. Sampling onshore cannot be regarded as concurrent due to unknown level of potential discards during fishing operations and uncertainty whether all by-catch and discards are duly recorded in a log-books. Therefore, the concurrent sampling is applied during at sea sampling only, when the scientific observer is physically present on board the vessel and have real access to all catch.

III.E.3 Actions to avoid deviations

Shortfalls or oversampling described in sections III.E.1 were unavoidable due to the changes in the fishing pattern in 2016 as compared to previous years. Sampling scheme needs to be adjusted according to fishing spatial and temporal distribution and therefore more direct contacts and dialogue with fishing industry is in place.

III.E North Sea and Eastern Arctic

III.E.1 Achievements: Results and deviation from NP proposal

According to the NP, in 2016 Poland should sample one stock in the region of North Sea and Eastern Arctic, *Gadus morhua* I-II. There were only slight shortfall in the sampling of biological variables for this cod stock – by 13%, due to the fact that during the one trip planned to sample this stock in NP the vessel changed fishing ground and target species.

III.E.2 Data quality issues

There were no deviations from the NP.

III.E.3 Actions to avoid deviations

No action required.

III.E Other regions

III.E.1 Achievements: Results and deviation from NP proposal

CECAF and SPRMFO areas

In 2016 there were 16 fishing trips in the CECAF area and 6 fishing trips in the SPRMFO area performed by Polish vessels.

In case of both CECAF and SPRMFO areas, sampling in 2016 were arranged through agreed joint sampling programmes, coordinated by the Netherlands. Sampling activities and achievements are to be described in the Netherlands' Annual Report 2016.

See Section *III.C – Other Regions* for details.

III.E.2 Data quality issues

Sampling in 2016 in both the CECAF and SPRFMO area s were arranged through agreed joint sampling programmes, coordinated by the Netherlands. Sampling activities and achievements are to be described in the Netherlands' Annual Report 2016.

III.E.3 Actions to avoid deviations

No action required.

III.F Transversal variables

III.F.1 Capacity

III.F.1.1 Achievements: Results and deviation from NP proposal

Data originated from the national register of fishing vessels. Assigning a given vessel to a segment of the fleet was based on information derived from fishing logbooks or monthly reports (vessels below 8 m LOA). The data were collected from all active vessels (those which performed catches on at least one day per year) as well as from inactive vessels (those which do not conduct catches, but were registered as of January 1st , 2015).

III.F.1.2 Data quality: Results and deviation from NP proposal

The data were collected for the entire population; there is no need for data sampling.

III.F.1.3 Actions to avoid deviations

Not applicable

III.F.2 Effort

III.F.2.1 Achievements: Results and deviation from NP proposal

Effort data were collected using vessel register, logbooks or monthly catch declarations in case of vessels less than 8 meter length.

III.F.2.2 Data quality: Results and deviation from NP proposal

All effort data are based on census information.

III.F.2.3 Actions to avoid deviations

Not applicable

III.F.3 Landings

III.F.3.1 Achievements: Results and deviation from NP proposal

Information was gathered from entire population. As mentioned earlier due to confidentiality reasons some of the transversal variables, i.e. value of landings and prices by commercial species, were collected but could not be reported for “Other regions” and “North Sea and Eastern Arctic” where small number of vessels (2+1 units) operated. Data about landing value for smaller vessels (less than 8 meters) were estimated based on price information available from other vessels. Volume of landings of the vessels was taken from monthly catch reports submitted to FMC (census data).

III.F.3.2 Data quality: Results and deviation from NP proposal

Data for value of landings were produced for entire population (100%) using sales notes information. If value was missing for some vessels belonging to different segments it was estimated on the basis of average prices of similar group of vessels taking into account seasonal price variability.

III.F.3.3 Actions to avoid deviations

Not needed.

III.G Research surveys at sea

The National Marine Fisheries Research Institute in Gdynia conducted three research surveys in 2016, which have the priority 1. The following surveys were executed on board of the r/v "Baltica" within the Polish EEZ:

- the bottom-trawl survey (BITS-Q1), conducted in the period of 11-26.02.2016, within the framework of the Baltic International Trawl Surveys long-term programme. The aim of the survey is an evaluation of *Gadus morhua* and *Platichthys flesus* and, to some extent, *Sprattus sprattus* and *Clupea harengus* recruiting year classes strength (abundance index) and analysis of their distribution during winter in the bottom zone of the southern Baltic.

- the acoustic and pelagic-trawl survey (BIAS), conducted in the period of 13-30.09.2016, within the framework of the Baltic International Acoustic Surveys long-term programme. The aim of the survey is an estimation of *Clupea harengus*, *Sprattus sprattus* and, to some extent, *Gadus morhua* stocks resources (biomass and abundance) and analysis of their spatial distribution in the pelagic zone of the southern Baltic during autumn season.

- the bottom-trawl survey (BITS-Q4), conducted in the period of 8-29.11.2016, within the framework of the Baltic International Trawl Surveys long-term programme. The aim of the survey is an evaluation of *Gadus morhua* and *Platichthys flesus* and, to some extent, *Sprattus sprattus* and *Clupea harengus* recruiting year classes strength (abundance index) and analysis of their distribution during a in the bottom zone of the southern Baltic.

The principal methods of investigations, timing of the BITS and BIAS surveys and the scheme of randomly selected control-hauls spatial distribution in the bottom zone of the southern Baltic were designed and co-ordinated by the ICES Baltic International Fish Survey Working Group [WGBIFS].

III.G.1 Achievements: Results and deviation from NP proposal

• **BITS-Q1/2016 survey**: overall, 16 days at sea were used for fulfilling the survey purposes (and 16 days were originally planned). The r/v. "Baltica" performed 47 out of 49 planned bottom trawl catch-stations, 27 and 20 in SDs 25 and 26 respectively, at location randomly selected by WGBIFS (Fig. 1). Two hauls were not performed due to measured oxygen content which was below the ICES limit (1.5 ml/l) indicating no fish on the bottom. Zero catch haul was assumed in the positions of these hauls.

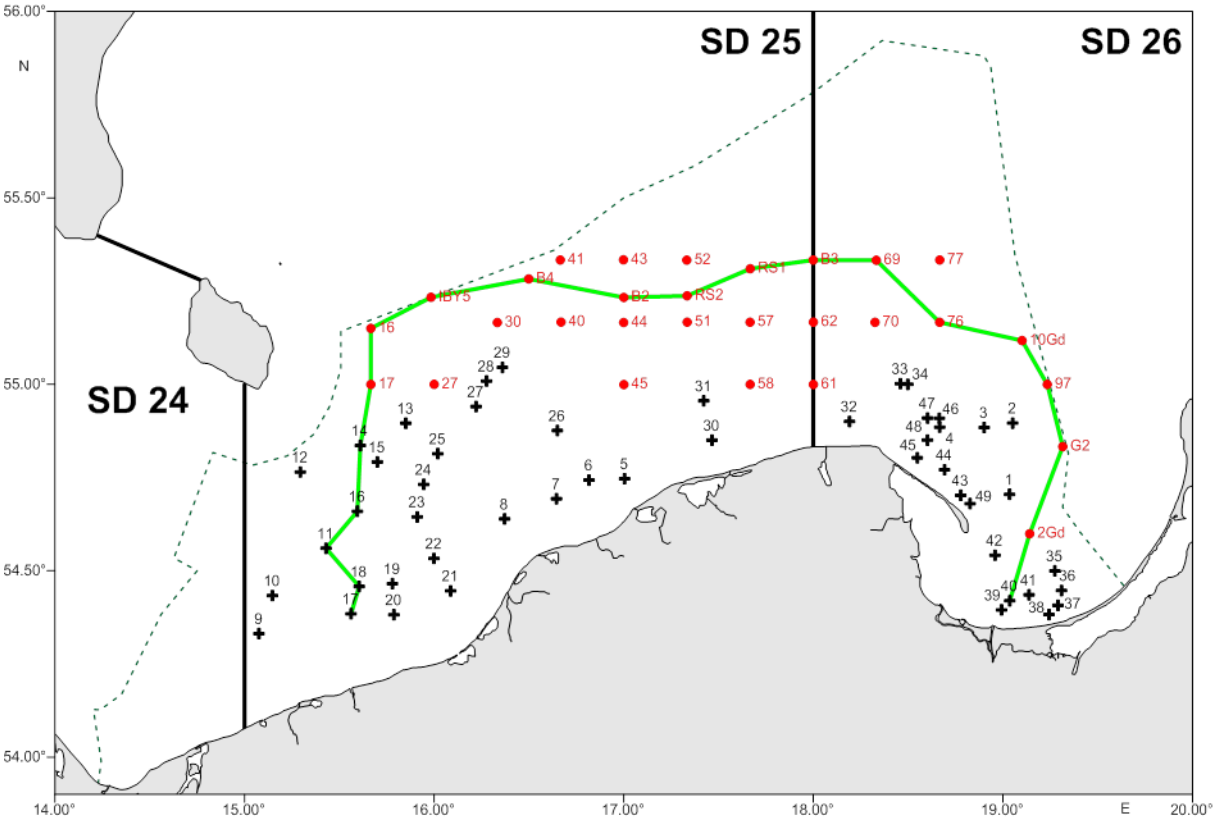


Figure 1. *Location of the bottom trawl hauls (crosses Nos. 1-49), the hydrological standard stations (red dots) and hydrological profile (green line) inspected by the r.v. "Baltica" during the BITS-Q1/2016 survey in the Polish part of the southern Baltic (dashed line).*

Trawling was done with the standard bottom trawl type TV-3#930, with 10-mm mesh bar length in the codend. Control hauls were conducted at the daylight, for 30 minutes each. In order to determine species composition and evaluate the CPUE for single species, catch from each control-haul was sorted, fish were weighed and the samples of dominants were taken to determine the length distribution, age-length-mass relationships, sex, stage of gonads development, feeding conditions, the numerical share of young, undersized specimens in samples, and prevalence of externally visible diseases. The total length distribution and the mean mass at the 0.5-cm classes - in the case of clupeids and 1-cm classes in the case of other species were determined. Following number of fish of main species were taken for the length and mass determination:

- *Gadus morhua* – 10943,
- *Clupea harengus* – 6092,
- *Sprattus sprattus* – 4313,
- *Platichthys flesus* – 5702,
- *Pleuronectes platessa* – 810.

In total, 28212 individual fish, representing 24 species were taken for the length and mass determination. During the length measurements fish were visually inspected for determination the symptoms of different pathological changes, visible on the skin surface and in the vertebral column.

Overall, 3234 individual fish, including, 449 of *Gadus morhua* , 680 of *Clupea harengus* , 501 of *Sprattus sprattus* , 823 of *Platichthys flesus*, 471 of *Pleuronectes platessa* and 310 individuals of other fish species were taken to the standard biological analyses, including ageing. Biological analyses of fish were made in accordance to the standard methodological procedures recommended by the ICES-WGBIFS, directly on board of the research vessel.

Every control-haul was preceded by the basic hydrological parameters measurements (the seawater temperature, salinity, oxygen content), made continuously from the sea-surface to the bottom. The hydrological data were aggregated and archived per each 1-m depth interval. Additionally, 29 standard hydrographic stations at the main hydrological research profile of the southern Baltic were controlled by the Neil-Brown CTD-probe combined with the rosette sampler (the bathometer rosette). Oxygen content was determined by the standard Winkler's method. Meteorological observations of air temperature, wind speed and direction and atmospheric pressure were performed at actual geographical position of each research station, with applied automated station type MILOS-500.

• **BITS-Q4/2016 survey**: overall, 22 working days at sea were used to fulfil the survey goals (ten days more than originally planned). Overall, 51 out of 60 (33 originally planned) catch-stations were accomplished, 3, 28 and 20 in SDs 24, 25 and 26 respectively, at location randomly selected by WGBIFS (Fig. 2). The above increase in the number of days at sea and number of hauls were a result of the implementation of the rule by the government on obligatory embarkation of Polish administrative observer on-board foreign research vessel entering Polish exclusive economic zone. Following that rule, Denmark and Germany decided to cancel their surveys in Polish zone within the framework of WGBIFS. Hence, all the hauls previously conducted by Danish and German vessels in Polish zone were allocated to Poland, increasing their number for Poland from 33 to 60. In consequence also number of days was increased from 12 to 22. Nine planned hauls were not realized: six of them due to bad weather and three due to measured oxygen content below ICES limit (1.5 ml/l).

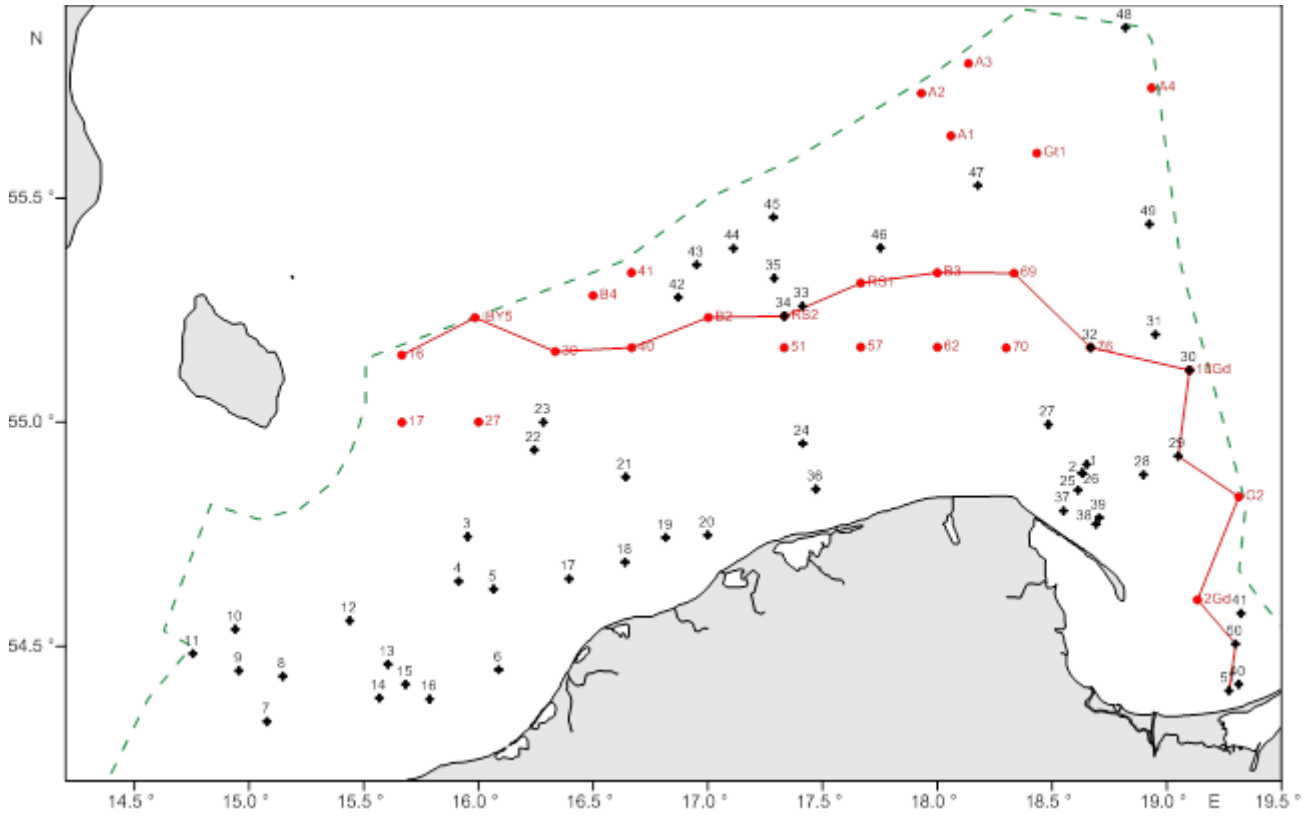


Figure 2*. Location of the bottom trawl hauls (crosses Nos. 1-51), the hydrological standard stations (red dots) and hydrological profile (red line) inspected by the r.v. "Baltica" during the BITS-Q4/2016 survey in the Polish part of the southern Baltic (dashed line).*

Trawling was done with the standard bottom trawl type TV-3#930, with 10-mm mesh bar length in the codend. Control hauls were conducted at the daylight, for 30 minutes each.

The catch per unit effort (CPUE) of each species was calculated. The catch from each control haul was sorted out, fish were weighed and the samples or sub-samples were taken to determine the length distribution, age-length-mass relationships, sex, stage of gonads development, feeding conditions. In the case of *Pleuronectes platessa* and *Scophthalmus maximus* (previous name: *Psetta maxima*) and in the most hauls regarding *Gadus morhua* and *Platichthys flesus*, every specimen caught was taken to the total length and mass measurements. In the case of clupeids, the subsamples were taken. The total length distribution and the mean mass at the 0.5-cm classes - in the case of clupeids and 1-cm classes in the case of other species were determined. Following number of fish of the main commercial species were taken for the length and mass determination:

- *Gadus morhua* – 9609,
- *Clupea harengus* – 6514,
- *Sprattus sprattus* – 4714,
- *Platichthys flesus* – 3471,
- *Pleuronectes platessa* – 821.

Overall, 26311 individual fish, representing 24 species, were taken for the length and mass determination. All fish taken for the length measurements were also visually inspected for

determination of externally symptoms of diseases, visible on the skin surface and in the vertebral column (various pathological changes).

Overall, 3646 individual fish, including 512 of *Gadus morhua,* 515 of *Sprattus sprattus* , 1024 of *Clupea harengus* , 788 of *Platichthys flesus*, 498 *Pleuronectes platessa* and 24 of *Scophthalmus maximus* individuals were taken to the standard biological analyses performed according to the ICES-WGBIFS standard methodological procedures, directly on board of the research vessel. Materials collected during fish length measurements were used for an evaluation of the juvenile, undersized specimens' numerical share in samples.

Every control-haul was preceded by the basic hydrological parameters (the seawater temperature, salinity, oxygen content) measurements, made continuously from the sea-surface to the bottom. The hydrological data were aggregated and archived per each 1-m depth interval. Overall, 74 measurements at hydrological stations were made in the survey area, including 51 stations at the starting position of control hauls and 23 additional standard hydrographic stations along the research profile of the southern Baltic. The Neil-Brown CTD-probe combined with the rosette sampler (the bathometer rosette) was applied for these measurements. Oxygen content was determined by the standard Winkler's method. Meteorological observations of air temperature, wind speed and direction and atmospheric pressure were performed at actual geographical position of each research station, with applied automated station type MILOS-500.

• **BIAS/2016 survey**: in total, 18 working days were used to fulfil the survey goals (18 days were planned), and 36 out of 38 planned fish catch-stations with the use of herring small-meshed pelagic trawl type WP 53/64x4 with 6 mm mesh bar length in the codend were performed. (Fig.3). Depth to the bottom at trawling positions varied from 28 to 105 m. Standard towing time was 30 minutes

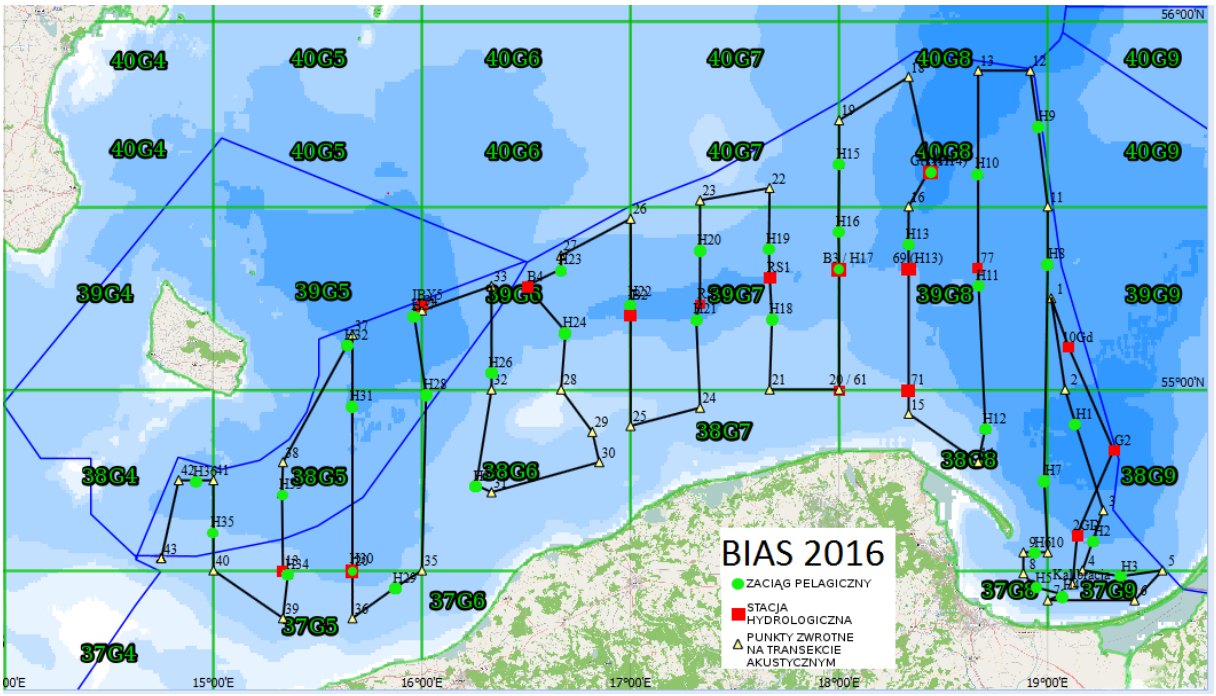


Figure 3*. Location of the echointegration track, pelagic control hauls, hydrologic stations and the calibration site during the autumn BIAS 2016 survey in the Polish Exclusive Economic Zone on board r/v Baltica.*

Fish caught in each control-haul were sorted by species and weighed. The total length distribution and the mean mass at the 0.5-cm classes - in the case of clupeids and 1-cm classes in the case of Gadus morhua and the by-catch were determined. Following number of fish of main species were taken for the length and mass determination:

- *Gadus morhua* – 253,
- *Clupea harengus* – 7645,
- *Sprattus sprattus* – 6902.

Overall, 2003 individual fish, including 121 of *Gadus morhua* , 554 of *Sprattus sprattus* and 1328 of *Clupea harengus* were taken to the standard biological analyses performed according to the ICES-WGBIFS standard methodological procedures, directly on board of the research vessel.
The acoustic system calibration was performed on 13.09.2015, at the geographical position: φ = 54° 27.681' N, λ = 019° 07.132' E. The SIMRAD EK-60, split-beam scientific echosounder, with the transducers type ES38-B and ES120-7C, working at frequencies of 38 and 120 kHz was used. The new applied values of acoustic parameter S_v (transducer gain) for the transducers type ES38-B and ES120-7C were 23.85 dB and 26.50 dB respectively. For comparison, calibration results (*Sv*) from previous year (17.09.2015) were the same.

One of the principal survey task was to collect echo-integration records (S_A = NASCs; Nautical Area Scattering (Strength) Coefficient) along the pre-selected acoustic transects on the distance of about 830 NM.

The distance covered in Sep. 2016 with echosounding was 876 NM (EDSU - Elementary Distance Sampling Unit). In the final calculation of fish stocks biomass the above mentioned value of EDSU=876 NM was accepted as fully valid and the area of about 13000 NM^2 were covered with echosounding. The values of the S_A parameter for each ESDU were the input data for fish stocks biomass estimation. The echo-integration data, which originated mostly from the layers of 10-m depth interval, were collected during daytime. Because of a vessel's hull vibrations and aeration zone, an echo-integration started at 10-m depth from a sea surface. The mean target strength (TS) – one of the principal acoustic parameter – was calculated according to following formulas:

- clupeids TS = 20 log L - 71.2 (Anon. 1983),
- gadoids TS = 20 log L - 67.5 (Foote et al. 1986), where L – length of fish

The total number of fish in each of the ICES rectangles was estimated as a product of the mean NASCs from scrutinized acoustic data and a rectangle area, divided by corresponded the mean acoustic cross-section. Clupeids abundance was separated into *Sprattus sprattus* and *Clupea harengus* according to the mean share in control-catches in the given ICES rectangles.

The seawater temperature and salinity were measured continuously from the sea surface to the bottom, and oxygen content every 10 m, directly after each of 36 control hauls. The hydrological parameters were measured also at 14 hydrographical stations located within the Polish marine waters. In total, 48 hydrological stations were inspected with the Idronaut or Neil-Brown CTD-probe combined with the rosette sampler (the bathometer rosette). Oxygen content was determined by the standard Winkler's method. The basic meteorological parameters, i.e. air temperature and pressure, wind direction and force, state of sea were registered at the each catch-station location with the use of automated station type MILOS-500.

III.G.2 Data quality: Results and deviation from NP proposal

There were no deviations from the NP.

The BITS and BIAS surveys data collected by the NMFRI in 2016 are stored in a local database and were regularly submitted to the internationally co-ordinated databases (TowDatabase, ROSCOP, DATRAS, BIAS_DB, WKBIFS-ACOU, WKBIFS-BIOTIC). The surveys data were submitted to the ICES Baltic International Fish Surveys Working Group (WGBIFS) for the analysis and compiled data were provided to the Baltic Fisheries Assessment Working Group (WGBFAS) for the assessment of the Baltic fish stocks (*Gadus morhua , Platichthys flesus, Clupea harengus, Sprattus sprattus*). The surveys data were successfully uploaded to ICES databases and have been checked positively.

III.G.3 Actions to avoid deviations

No deviations requiring actions were experienced.

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

IV.A Collection of data concerning the aquaculture

In 2015 the total volume of aquaculture production for consumption was 37.0 thousand tons, comprised of 17.7 thousand tons of Common carp (*Cyprinus carpio*), 13.3 thousand tons of Rainbow trout (*Oncorhynchus mykiss*) and 6.0 thousand tons of other species. Carp farms are located all over the country but larger facilities are located in central and southern Poland where climatic conditions are warmer and thus more advantageous. Rainbow trout farms are located in the north on the Baltic Sea coast and in southern Poland in the Carpathian foothills in rich terrain with clear, cool waters. Most of aquaculture farms produce more than one species, mainly Grass carp (*Ctenopharyngodon idella)*, Silver carp (*Hypophthalmichthys molitrix)*, Bighead carp (*Hypophthalmichthys nobilis)*, Pike (*Esox Lucius)*, European catfish (*Silurus glanis*), Tench (*Tinca tinca)* and Sturgeons (*Acipenseridae*).

In addition to the production of fish for consumption, Polish aquaculture produced seed and stocking material of many species for sale, among them Atlantic salmon fry for stocking Polish Marine Areas.

Within the framework of DCF, in accordance with the provisions of Chapter IV, Part A, point of 2.2. Commission decision of 18 December 2009 (2010/93/EU), Poland did not collect economic data for freshwater fishery.

The target population for collecting economic data was only fish farms that produced Atlantic salmon (*Salmo salar)* stocking material for restocking Polish Marine Areas and cooperate with the Panel for Restocking appointed by the Minister of Agriculture and Rural Development.

IV.A.1 Achievements: Results and deviation from NP proposal

No deviation compared to NP proposal took place.

A sector has been identified for DCF's purpose which consists of fish farms that breed and rear *Salmo salar* fry and that cooperate with the Panel for Restocking appointed by the Minister of Agriculture and Rural Development for stocking Polish Marine Areas. In 2015 this sector counted four farms.

All economic variables concerning the aquaculture as set out in Appendix X of Commission Decision of 18 December 2009 (2010/93/EU) were collected through questionnaire "RRW-A questionnaire on economic performance of aquaculture sector" addressed to all farmers from this sector. It was assumed to collect questionnaires from all farms that breed and rear *Salmo salar* fry and that cooperate with the Panel for Restocking.

The questionnaire is voluntary, so farming owners are not obliged to complete it.

IV.A.2 Data quality: Results and deviation from NP proposal

No deviation compared to NP proposal took place.

The economic data were collected for the entire population but only one from four active farms responded to the survey and thus only 25% response rate was achieved.

IV.A.3 Actions to avoid deviations

Not applicable

IV.B Collection of data concerning the processing industry

IV.B.1 Achievements: Results and deviation from NP proposal

No deviation compared to NP proposal took place.

The target population was 188 fish processing plants of NACE Code 10.20: ”Processing and preserving of fish, crustaceans and mollusks” authorized to sell their products on national and EU market, recorded in the Polish Veterinary Registry. The number of enterprises (population) is changing every year because few are inactive, merged, shut down or there are created new ones.

All economic variables concerning the processing industry as set out in Appendix XII of Commission Decision of 18 December 2009 (2010/93/EU) were collected through questionnaire.

It was assumed to collect questionnaires from all fish processing companies (there is a legal obligation for the companies to fill them according to the regulation of June 29, 1995 on public statistics (Journal of Laws. No. 88, pos. 439, with later amendments). An 80% response rate was achieved. However, since all major players were included, this gives information on almost entire fish processing production in Poland. All questionnaires were verified for consistency, and only information received from verified questionnaires was used to carry out the analysis of the economic results of fish processing.

Economic information was also collected from companies that carry out fish processing but not as a main activity. In 2015 there were 60 such companies, and 49 of them sent forms (82%).

IV.B.2 Data quality: Results and deviation from NP proposal

No deviation compared to NP proposal took place.

In accordance with national regulations, economic data were collected obligatory for the entire population. An 80% response rate was achieved for all segments. In order to ensure the maximum number of questionnaires is received, similarly to previous years reminders of the obligation to file them were sent by ordinary and registered mail and phone calls were made to execute the obligation.

IV.B.3 Actions to avoid deviations

Not applicable.

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

V.1 Achievements: Results and deviation from NP proposal

No deviations from NP were encountered. Fisheries independent research survey data were collected in 2016 during three surveys called BITS1q, BIAS and BITS4q. Data collected during surveys included data related to four DCF indicators describing the effects of fisheries on the marine ecosystem (conservation status of fish species, proportion of large fish, mean maximum length of fishes and size at maturation of exploited fish species).

VMS data and catch data were collected directly from the Polish Fisheries Monitoring Centre (CMR) and stored in national DCF database in their original format. VMS and catch data were exported in

relevant exchange formats *tacstat* (VMS data) and *eflalo* (catch data). Afterwards, data sets were loaded into the dedicated software *VMStools* which is a tool for VMS data analysis recommended by ICES WGs.

V.2 Actions to avoid deviations

No action required.

VI Module for management and use of the data

VI.1 Achievements: Results and deviation from NP proposal

VI.1.1 Management of data

No deviations from NP were encountered.

Upload of biological, economic and transversal data to the database on server located at NMFRI is done with the use of dedicated application based on Microsoft ASP.Net technology (Active Server Pages). As part of ensuring the security of data storage, an automatic backup procedure has been implemented, taking place every day. Access to applications and databases is possible only on the local network of the NMFRI. The application provides control access to the data through a system of user accounts and roles assigned to them. In order to increase the efficiency of the database, the process of query optimization is performed. Mechanism for the exchange of data in more formats than presently used is constantly developed in order to meet new emerging requirements of data calls. The current procedure for checking the quality and completeness of data provides for a two-step process of entering information. In the first stage, the data are entered and are marked with the status of forcing their verification. The second stage involves the approval of the data by an authorized user who has the ability to cross-check with administrative data. A set of standard reports enabling current control of the quality and completeness of data are gradually implemented. The content of lookup tables is updated in order to keep compatibility with external databases (e.g RDB FishFrame, DATRAS).

Following the outcomes of RCMs related to modifications and development of Regional Data Base (FishFrame), relevant arrangement are made to national data base development in order to create appropriate protocols of transferring the data formats compatible with FishFrame formats.

VI.1.2 Data transmission

The updated list of DCF data Calls in 2016 was not available at the DCF webpage (https://datacollection.jrc.ec.europa.eu/docs/list-of-dcf-data-calls). Therefore, list of data transmissions to end users in 2016 provided in standard table VI.1 is based on national record of Data Calls.

Requirements of data calls were met, including provision of data sets for ICES assessment working groups for Baltic and Atlantic stocks, the JRC and RCMs. Poland updated international databases like DATRAS, FishFrame, TowDatabase, ROSCOP, BIAS_DB and WKBIFS-ACOU (hydroacoustic databases), WKBIFS-BIOTIC, Marine Litter Database (part of DATRAS).

Poland delivered data in a spectrum that included: effort; quantities landed; quantities discarded; CPUE data; survey data; length composition of landings; age composition of landings; length composition of discards; age composition of discards; growth; sexual maturity; sex ratios; economic data for the fleets; economic data for the fish processing industry.

With regard to surveys, data from BITS surveys (1st and 4th quarter) and BIAS survey included all fish species from control hauls in ICES SDs 24-26. However, due to the lack of common database for hydroacoustic surveys, data from BIAS survey (September-October) were uploaded for *Sprattus sprattus, Clupea harengus* and *Gadus morhua* on aggregated level only - abundance and mean weights by those three species and by ICES rectangles, as well as an acoustic parameters – NASCs and mean cross section.

On top of data transmitted in response to official data calls, the collected data are widely used in support of national fisheries management, conferences, seminars or consultations with the industry – in a form of expertise and opinions for national fisheries administration, presentations or articles in "Wiadomości Rybackie" ("*Fisheries News"*- the journal published by the NMFRI), the examples of which in 2016 are:

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VI.2 Actions to avoid deviations

No action required.

VII List of acronyms and abbreviations

Acronyms and abbreviations	Names
AR	Annual Report
BIAS	Baltic International Acoustic Surveys
BIAS_DB	Baltic International Acoustic Surveys Data Base
BITS	Baltic International Trawl Surveys
CECAF	Committee for the Eastern Central Atlantic Fishery
CPUE	Catch Per Unit Effort
DATRAS	DATabase of TRAwl Surveys
DCF	Data Collection Framework
EDSU	Elementary Distance Sampling Unit
EEZ	Exclusive Economic Zone
FishFrame	Fisheries & Stock Assessment Data Framework,
ICES	INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA
LDF	Long Distant Fisheries
NACE	Statistical Classification of Economic Activities in the European Community (for the French term *"**n**omenclature statistique des**a**ctivités économiques dans la **C**ommunauté **e**uropéenne")*
LOA	Length Overall
NASCs	Nautical Area Scattering (Strength) Coefficient
NMFRI	National Marine Fisheries Research Institute
NP	National Programme
NS&EA	North Sea and Eastern Arctic
PGDATA	Planning Group on Data Needs for Assessment and Advice
RCM	Regional Co-ordination Meeting
ROSCOP	Report of Observations/Samples Collected by Oceanographic Programmes

SD	Sub-division
SPRFMO	South Pacific Regional Fishery Management Organization
TAC	Total Allowable Catch
TowDatabase	Database for trawl station
WGBFAS	Working group for international research surveys in Baltic
WGBIFS	Baltic International Fish Survey Working Group
WGFAST	Working Group on Fisheries Acoustics Science and Technology
WGRFS	Working Croup on Recreational Fisheries Surveys
WKARPV	ICES Workshop on Age Reading of Saithe
WKBIFS-ACOU, WKBIFS-BIOTIC	ICES data bases for acoustic and biological data from acoustic surveys
VMS	Vessel Monitoring System
OTB,PTB,GNS,LLS,etc	Fishing gear

VIII Comments, suggestions and reflections

None

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X Annexes

Annex 1. Bilateral Agreement with Finland

Bilateral Agreement between the Finnish Game and Fisheries Research Institute and National Marine Fisheries Research Institute (Poland) for the collection and genetic analysis of salmon catch samples in accordance with EC Regulation 665/2008, laying down detailed rules for the application of Council Regulation (EC) 199/2008, and its Commission Decision 2010/74/EU2008/949/EC

Agreement:

Salmon fishing vessels, which operate in the Baltic Sea Main Basin and land for first sale into Poland, will be sampled as part of the Polish National Programme under the requirements of the EC Data Collection Framework (199/2008). The eventual additional sampling costs will be covered within the Polish National Sampling Programme for 2014 - 2016.

Based on this agreement, the National Marine Fisheries Research Institute (NMFRI) will deliver the collected salmon samples (part of the scales of each sample and associated data) to the Finnish Game and Fisheries Research Institute (FGRFI) for genetic analysis. The genetic analysis will be carried out as part of the Finnish National Programme under the requirements of the EC Data Collection Framework (199/2008). The costs of genetic analysis will be covered within the Finnish National Sampling Programme for 2014 - 2016.

Description of sampling:

The sampling of landings will be carried out in accordance with the Polish National Sampling Programme.

Sampling Intensity:

Levels and coverage as agreed at the annual meeting of RCM Baltic based on actual possibilities.

Data responsibility:

The FGFRI will deliver the results of genetic analysis to the NMFRI, as well as to the relevant ICES Expert Groups, and to the EC under the requirements of its Data Collection Framework.

The NMFRI reserves rights to include their staff in all publications made with use of data collected within that agreement.

Contact persons: In FGFRI, Tapani Pakarinen
In NMFRI, Wojciech Pelczarski

Signatures:

Finnish Game and Fisheries Research Institute

~~Riitta Rahkonen~~, Research Director
ON BEHALF OF

Date: Helsinki 4.9.2013

VESA ORUVUKI

National Marine Fisheries Research Institute

Iwona Psuty, Deputy Director (Research)

Date: 15.08.2013

Annex 2. Bilateral Agreement with Sweden

Bilateral Agreement between University of Agricultural Science (SLU), Institute of Marine Research Sweden and National Marine Fisheries Research Institute Poland for the collection of length and age samples in accordance with EC Regulation 665/2008, laying down detailed rules for the application of Council Regulation (EC) 199/2008, and its Commission Decision 2010/93/EU

This agreement has been establish between Poland and Sweden due to landings of sprat by Polish flagged vessels take place in Sweden in an amount that it has to be dealt with in a form of bilateral agreement (RCM Baltic 2011).

Agreement:

While sprat in the Baltic is managed as one single stock and that the stock is well covered concerning biological samples, vessels fishing under the Polish register, which land for first sale into Sweden, will be sampled as part of the Polish National Programme under the requirements of the EC Data Collection Framework (199/2008).

Description of sampling:

The sampling will be for length and age of discards and landings, sampling will be carried out in accordance with the Polish National Sampling Programme.

Data responsibility:

Sweden is responsible for submitting the data from Swedish vessels, and Poland in the case of sampling Polish vessels, to the relevant ICES Expert Groups, and to the EC under the requirements of Data Collection Framework. Both Member States will provide the required data for the species that are requested by the relevant ICES Expert Groups as and when requested.

Contact persons:

In Sweden (SLU): Maria Hansson: maria.hansson@slu.se

In Poland (NMFRI): Irek Wójcik: iwojcik@mir.gdynia.pl

Signatures:

For Sweden (SLU)

Maria Hansson

National Correspondent, Sweden

For Poland (NMFRI)

Zbigniew Karnicki

National Correspondent, Poland

Date: 1 okt 2011

Annex 2.1. Amendment to Bilateral Agreement with Sweden

Amendment to the

Bilateral Agreement between University of Agricultural Science (SLU), Institute of Marine Research Sweden and National Marine Fisheries Research Institute Poland for the collection of length and age samples in accordance with EC Regulation 665/2008, laying down detailed rules for the application of Council Regulation (EC) 199/2008, and its Commission Decision 2010/93/EU

The agreement between Sweden and Poland for biological data collection of sprat fisheries in the Baltic (Agreement), as signed on 1st of October 2011 is amended as follows:

Parties to the Agreement

Due to the internal change related to the responsibility for Data Collection in Sweden, the Agreement became the agreement between the **Swedish Agency for Marine and Water Management (SwAM)**, Sweden and the National Marine Fisheries Research Institute (NMFRI), Poland.

Term

Due to an extension of the current DCF for further years and the adoption of NP 2011-2013 for period 2014-2016, the Agreement remains in force until 31st December 2016 unless revoked before that date if required by the changes to the Council Regulation (EC) 199/2008.

Signatures:

For Sweden (SwAM)

Anna Hasslow

National Correspondent, Sweden

For Poland (NMFRI)

Ireneusz Wójcik

on behalf of National Correspondent, Poland

Date: 27 August 2014

Annex 3. Bilateral Agreement with Germany

Bilateral Agreement between Poland (NMFRI) and Germany (TI) for the collection of biological data in accordance with EC Regulation 665/2008, laying down detailed rules for the application of Council Regulation (EC) 199/2008, and its commission decision 2010/93/EU.

Agreement:

Biological sampling of yellow and silver eels from commercial fisheries in the Oder River Basin District will be covered within the Polish National Programme under the requirements of the EC Data Collection Framework (Reg. 199/2008). Sampling costs will be included within the Polish National Programme.

Description of sampling:

Both Polish and German fisheries target eel in the Oder River Basin District and are using the same practices. Sampling for primary biological data will be covered in accordance with the Polish National Programme.

Sampling intensity:

The target sample sizes are 100 yellow and 100 silver eel from commercial fisheries in the Oder River Basin District. However, sample size might be adjusted to a lower level depending on the availability of eel from Polish commercial fisheries.

Data responsibility:

Poland will be responsible for submitting the data to the relevant ICES Expert Groups, and to the EC under the requirements of its Data Collection Framework. Poland will provide the data for European eel, relevant for the Data Collection Framework, to Germany as and when requested.

Contact Persons

Poland: Tomasz Nermer; nermer@mir.gdynia.pl

Germany: Jan-Dag Pohlmann; jan.pohlmann@ti.bund.de

Signatures:

Poland	Germany
Dr. Zbigniew Karnicki	Dr. Christoph Stransky
Polish National Correspondent	German National Correspondent

Date: 07 May 2013

Annex 4. Bilateral Agreement with Denmark

Bilateral Agreement between Danish Technical University - National Institute of Aquatic Resources (DTU-Aqua) Denmark and National Marine Fisheries Research Institute (NMFRI) Poland for the collection of length and age samples in accordance with EC Regulation 665/2008, laying down detailed rules for the application of Council Regulation (EC) 199/2008, and its Commission Decision 2010/93/EU

This agreement has been establish between Poland and Denmark due to landings of sprat by Polish flagged vessels take place in Denmark in an amount that it has to be dealt with in a form of bilateral agreement (RCM Baltic 2011).

Agreement:

While sprat in the Baltic is managed as one single stock and that the stock is well covered concerning biological samples, vessels fishing under the Polish register, which land for first sale into Denmark, will be sampled as part of the Polish National Programme under the requirements of the EC Data Collection Framework (199/2008).

Description of sampling:

The sampling will be for length and age of discards and landings, sampling will be carried out in accordance with the Polish National Sampling Programme.

Data responsibility:

Denmark is responsible for submitting the data from Danish vessels, and Poland in the case of sampling Polish vessels, to the relevant ICES Expert Groups, and to the EC under the requirements of Data Collection Framework. Both Member States will provide the required data for the species that are requested by the relevant ICES Expert Groups as and when requested.

Contact persons:

In Denmark (DTU-Aqua): Marie Storr-Paulsen: msp@aqua.dtu.dk

In Poland (NMFRI): Irek Wójcik: iwojcik@mir.gdynia.pl

Signatures:

For Denmark (DTU-Aqua)

Jørgen Dalskov

National Correspondent, Denmark

For Poland (NMFRI)

Zbigniew Karnicki

National Correspondent, Poland

Date: 24 June 2013

Annex 5. Multi-lateral Agreement on sampling in CECAF waters

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

Germany, Latvia, Lithuania, The Netherlands and Poland agree to co-operate in the biological data collection of pelagic fisheries in CECAF waters in 2012 and 2013. This agreement is in accordance with EC Regulation 665/2008, laying down detailed rules for the application of Council Regulation 199/2008 and Commission Decision 2010/93/EU.

Having regard the above mentioned Regulations and Decisions and the project description "Biological Data Collection of pelagic fisheries in CECAF water in compliance with the DCF" as discussed at the Regional Coordination Meeting for Long Distance Fisheries in Slovenia, May 2011, the following details apply to this agreement:

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

Member State	Institute	Contact person
Germany	Johann Heinrich von Thünen Institute (vTI)	C. Stransky
Latvia	Institute of Food Safety, Animal Health and environment	G. Kornilovs
Lithuania	The Fisheries Service under the Ministry of Agriculture of the Republic of Lithuania	V. Grušauskas
The Netherlands	Centre for Fisheries Research (CVO)	F.A. van Beek
Poland	Sea Fisheries Institute	I. Wojcik

Coordination
The Netherlands coordinate the execution of this multi-lateral agreement. The Netherlands will contract independent contractor 'Corten Marine Research' (CMR) as agent between The Netherlands and IMROP, the Mauritanian Fisheries Research institute. CMR will hire Mauritanian observers from IMROP to carry out the actual sampling. CMR and IMROP will have an agreement in which the mutual obligations will be formalized; among others that only the additional costs for this specific task will be priced.

Sampling protocol
Biological sampling is carried on board fishing vessels in CECAF area by Mauritanian observers. These observers are instructed by CMR and follow the sampling protocol as described in "Biological Data Collection of pelagic fisheries in CECAF waters in compliance with the DCF", version 31-05-2011.

Data responsibility
CMR is responsible for data collection, quality control and delivery to the CECAF pelagic working group of all data collected under this agreement. CMR also reports all data to CVO and CVO will distribute the data to Partners.

Costs
The total costs for the sampling programme amount € 64,768,= per year. This sampling programme is eligible for 50% funding under the current DCF. The Netherlands will include the total costs in its Annual Cost Statement. The remaining 50% of the costs (€ 32,384,=) is paid for by all partners following a key based on average catches in 2006-2010.

Contributor	Share catches (2006-2010)	Contribution	Amount (€/year)
Netherlands	30,53%	30,53% of 32,384	9,887
Germany	3,76%	3,76% of 32,384	1,224
Poland	6,07%	6,07% of 32,384	1,966
Lithuania	32,67%	32,67% of 32,384	10,579
Latvia	26,95%	26,95% of 32,384	8,728
		Subtotal partners	***32,384***
EU (through DCF)	-	50% of 64,768	32,384
		Total contribution	***64,768***

The Netherlands sends each Partner an invoice per year, to which normal financial conditions apply.

Access to vessels

On top of Council Regulation 199/2008 (Section 2, Article 11), each Partner ensures access to its fleet for Mauritanian observers under this agreement. Denied access to vessels does not exempt a Partner from legal or financial obligations.

Term

This agreement commences on January 1, 2012. With exception of financial obligations, this agreement ends on December 31, 2013. This agreement, with exception of financial obligations, is subject to dissolve prior to this date in case the pelagic fishery in the CECAF area by EU vessels closes. Eventual remaining contributions will be pro rata reimbursed to Partners.

Annex 5.1. Amendment to Agreement on sampling in CECAF waters (2014)

AMENDMENT TO:

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

This Amendment replaces the initial amendment dated December 2013, to reflect the impact of the introduction of the EMFF in the co-financing options. The amendment is retrospectively accepted as per 1st January 2014.

The Multi-lateral agreement between Germany, Latvia, Lithuania, The Netherlands and Poland for biological data collection of pelagic fisheries in CECAF waters, as signed by all countries named in June 2011 (See annex) is amended as follows from 1st January 2014 onwards:

Term:

The multi-lateral agreement is extended beyond its initial end date of 31 December 2013. The new end date is 31 December 2015.

Costs:

The cost share for each country of the total costs follows a key based on the share in average landings in 2008-2012. Due to the move from direct to in-direct co-funding through national EMFF budgets, co-funding of the National expenses shall be covered through the National EMFF budget of each respective member. As of 2014, co-funding is no longer executed through the Dutch National Budget as it was in previous years.

Cost shares are maximum amounts, in case of lower costs, deductions might apply in line with the relative shares.

Total Landings 2008-2012 (RCM LDF Data) and cost shares by partners

Partner	2008	2009	2010	2011	2012	average 2008-2012	Landings share	Cost share per year
Netherlands	83,630	68,019	92,980	55,044	34,926	66,920	**22.95%**	€ **14,864**
Germany	0	0	20,650	37,088	14,582	14,464	**4.96%**	€ **3,212**
Poland	17,709	46,287	14,605	60,177	29,178	33,591	**11.52%**	€ **7,462**
Lithuania	120,100	124,480	116,040	121,000	44,133	105,151	**36.06%**	€ **23,356**
Latvia	68,410	81,283	87,237	89,667	30,723	71,464	**24.51%**	€ **15,874**
TOTAL	*289,849*	*320,069*	*331,512*	*362,976*	*153,542*	*291,590*	*100.00%*	€ ***64,768***

Signatures for agreement

Member State	Name	Function	Signature
Germany	Christoph Stransky	National Correspondent	C. Stransky Date: 2.12.2014
The Netherlands	Sieto Verver	Head Centre for Fisheries Research	Date: 11/12/2014
Latvia	Aivars Berzins	Director, Institute of Food Safety, Animal Health and Environment BIOR	Date: 15.12.14
Lithuania	Aidas Adomaitis	Deputy Director, Acting Director	Date: 8/12/2014
Poland	Ireneusz Wójcik	Head of Department of Logistics & Monitoring	Date: 8.12.2014

Annex 5.2. Amendment to Agreement on sampling in CECAF waters (2015)

AMENDMENT TO:

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

April 2015

This Amendment adapts the Amendment dated December 2014 to extend the effective time-frame for this multi-lateral agreement and to reflect budget modifications for 2016. This amendment commences 1st of January 2016.

The Multi-lateral agreement between Germany, Latvia, Lithuania, The Netherlands and Poland for biological data collection of pelagic fisheries in CECAF waters, as signed by all Member States concerned in June 2011, and amended in December 2014, is amended as follows from 1st January 2016 onwards:

Term:

The multi-lateral agreement is extended until 31 December 2016.

Costs:

The cost share of the total costs for 2016 for each Member State follows a key based on the share in average landings in 2008-2012, as previously agreed. Following EMFF co-funding rules, co-funding of the national expenses shall be covered through the National EMFF budget of each respective Member State.

Cost shares are maximum amounts, in case of lower costs, deductions might apply in line with the relative shares.

Total Landings 2008-2012 (RCM LDF Data) and cost shares by partners

Partner	2008	2009	2010	2011	2012	average 2008-2012	Landings share	Cost share per year
Germany	0	0	20,650	37,088	14,582	14,464	**4.96%**	€ 3,358
Latvia	68,410	81,283	87,237	89,667	30,723	71,464	**24.51%**	€ 16,593
Lithuania	120,100	124,480	116,040	121,000	44,133	105,151	**36.06%**	€ 24,413
Netherlands	83,630	68,019	92,980	55,044	34,926	66,920	**22.95%**	€ 15,537
Poland	17,709	46,287	14,605	60,177	29,178	33,591	**11.52%**	€ 7,799
TOTAL	*289,849*	*320,069*	*331,512*	*362,976*	*153,542*	*291,590*	*100.00%*	€ 67,700

Signatures for agreement

Member State	Name	Function	Signature
Germany	Christoph Stransky	National Correspondent	Date: 22 April 2015
Latvia	Aivars Berzins	Director, Institute of Food Safety, Animal Health and Environment BIOR	Date: 28 May 2015
Lithuania	Indre Sidlauskiene	Director,Fisheries Service under the Ministry of Agriculture of the Republic of Lithuania	Date: 14 May 2015
The Netherlands	Sieto Verver	Head Centre for Fisheries Research	Date: 22 April 2015
Poland	Ireneusz Wójcik	Head of Department of Logistics & Monitoring	Date: 22 April 2015

Annex 6. Multi-lateral Agreement on sampling in SPRMFO waters (2015-2016)

Multi-lateral agreement between the responsible institutions of Germany, Lithuania, The Netherlands and Poland for biological data collection of pelagic fisheries in SPRFMO waters

Germany, Lithuania, The Netherlands and Poland agree to co-operate in the biological data collection of pelagic fisheries in SPRMFO waters in 2015 and 2016. This agreement is in accordance with EC Regulation 665/2008, laying down detailed rules for the application of Council Regulation 199/2008.

Having regard the above mentioned Regulation, the project proposal including budget forecast "Biological Data Collection of pelagic fisheries in SPRFMO waters in compliance with the DCF" (Annex 1) as well as the "Observer Manual for biological data collection in SPRFMO waters" (Annex 2), discussed at the Ad Hoc Regional Coordination Meeting for Long Distance Fisheries in Hamburg, April 21st , 2015, the following details apply to this agreement:

Partners
The following Member States are considered as partner within this agreement:

Member State	Institute	Contact person
Germany	Thünen Institute (TI)	Christoph Stransky (National Correspondent)
Lithuania	Fisheries Service under the Ministry of Agriculture of the Republic of Lithuania	Indre Sidlauskiene (Director)
The Netherlands	Centre for Fisheries Research (CVO)	Sieto Verver (Head CVO)
Poland	National Marine Fisheries Research Institute (NMFRI)	Ireneusz Wójcik (Head of Department, DCF Coordinator)

Coordination
The Netherlands coordinates the execution of this multi-lateral agreement. The Netherlands will contract independent contractor 'Corten Marine Research' (CMR) to carry out the actual work.

Sampling protocol
Biological sampling is carried out on board EU fishing vessels in SPRFMO area by CMR observers. These observers are instructed by CMR and follow the sampling protocol as described in "Observer Manual for biological data collection in SPRFMO waters", based on data collection requirements set out in "***CMM 3.02,*** *Conservation and Management Measure on Standards for the Collection, Reporting, Verification and Exchange of Data (SPRFMO-COMM-03 (2015)* ***ANNEX K****)".*

Data responsibility
CMR is responsible for data collection, quality control and delivery to the SPRFMO scientific working group of all data collected under this agreement. CMR also reports all data to CVO and CVO will distribute the data to Partners upon request.

Costs
The total costs for the sampling programme is estimated at the amount of € 81,705,= ex VAT per year. This sampling programme is eligible for co-funding under the national EMFF budget of the respective partners.

The total costs are shared by the partners following the relative shares in fishing opportunities in the SPRMFO area as set in the *Council Regulation (EU) 2015/523 of 25 March 2015 amending Regulations (EU) No 43/2014 and (EU) 2015/104 as regards certain fishing opportunities.* Cost shares are maximum amounts, in case of lower costs, deductions might apply in line with the relative shares. The yearly costs by partner are shown in the following table:

Partner	Share (%)	Contribution
Germany	25.15	€ 20.548
Lithuania	17.50	€ 14.300
The Netherlands	27.26	€ 22.273
Poland	30.09	€ 24.584
	Total contribution	***€ 81.705***

The Netherlands sends each Partner an invoice per year, to which standard financial conditions apply.

Access to vessels

On top of *Council Regulation 199/2008* (Section 2, Article 11), each Partner ensures access to its fleet for the observers under this agreement. Denied access to vessels does not exempt a Partner from legal or financial obligations.

Term

This agreement commences retrospectively on January 1, 2015. With exception of financial obligations, this agreement ends on December 31, 2016. This agreement, with exception of financial obligations, is subject to dissolve prior to this date in case the pelagic fishery in the SPRMFO area by EU vessels closes.

Signatures

Member State	Name	Function	Signature
Thünen Institute (TI) Germany	Christoph Stransky	National Correspondent	Date: 21 April 2015
Fisheries Service under the Ministry of Agriculture of the Republic of Lithuania (FS) Lithuania	Indre Sidlauskiene	Director	Date: 22 June 2015
Centre for Fisheries Research The Netherlands	Sieto Verver	Head Centre for Fisheries Research	Date: 21 April 2015
National Marine Fisheries Research Institute (NMFRI) Poland	Ireneusz Wójcik	Head of Department (NMFRI), DCF Coordinator	Date: 21 April 2015

Annex 1: "Biological Data Collection of pelagic fisheries in SPRFMO waters in compliance with the DCF".
Annex 2: "Observer Manual for biological data collection in SPRFMO waters".

Annex 7. Multi-lateral Agreement on sampling in SPRMFO waters (2017-2018)

Multi-lateral agreement for 2017 and 2018 between Germany, Lithuania, The Netherlands and Poland for biological data collection of pelagic fisheries in SPRFMO waters

Germany, Lithuania, The Netherlands and Poland agree to co-operate in the biological data collection of pelagic fisheries in SPRMFO waters in 2017 and 2018. This agreement is in accordance with EC Implemention decision 1251/2016, laying down detailed rules for the application of Council Regulation 199/2008.

Having regard the above mentioned Regulation, the project proposal including budget forecast, "Biological Data Collection of pelagic fisheries in SPRFMO waters in compliance with the DCF" (Annex 1) as well as the "Observer Manual for biological data collection in SPRFMO waters" discussed and approved at the Ad Hoc Regional Coordination Meeting for Long Distance Fisheries in Hamburg, April 21st , 2015 (Annex 2), the following details apply to this agreement:

Partners
The following Member States are considered as partner within this agreement:

Member State	Institute	Contact person
Germany	Thünen Institute (TI)	Christoph Stransky (National Correspondent)
Lithuania	Ministry of Agriculture of the Republic of Lithuania	Vilda Griuniene (National Correspondent)
The Netherlands	Centre for Fisheries Research (CVO)	Sieto Verver (Head CVO)
Poland	National Marine Fisheries Research Institute (NMFRI)	Ireneusz Wójcik (Head of Department, DCF Coordinator)

Coordination
Poland coordinates the execution of this multi-lateral agreement. The Netherlands will support Poland through providing near real time planning information of the expected fleet movement.

Sampling protocol
Biological sampling is carried out on board EU fishing vessels in SPRFMO area by Polish observers. These observers are instructed by Poland and follow the sampling protocol as described in "Observer Manual for biological data collection in SPRFMO waters", based on data collection requirements set out in "***CMM 3.02,*** *Conservation and Management Measure on Standards for the Collection, Reporting, Verification and Exchange of Data (SPRFMO-COMM-03 (2015)* ***ANNEX K****)".*

Data responsibility
Poland is responsible for data collection, quality control and delivery to the SPRFMO scientific working group of all data collected under this agreement. Poland will also distribute the data to Partners upon request.

Costs
The total costs for the sampling programme is estimated at the amount of € 69,398= ex VAT per year. This sampling programme is eligible for co-funding under the national EMFF budget of the respective partners.
The total costs are shared by the partners following the relative shares in fishing opportunities in the SPRMFO area as set in the *Council Regulation (EU) 2015/523 of 25 March 2015 amending*

Regulations (EU) No 43/2014 and (EU) 2015/104 as regards certain fishing opportunities. Cost shares are maximum amounts, in case of lower costs, deductions might apply in line with the relative shares. The yearly costs by partner are shown in the following table:

Partner	Share (%)	Contribution
Germany	25.15	€ 17,453
Lithuania	17.50	€ 12,145
The Netherlands	27.26	€ 18,918
Poland	30.09	€ 20,882
	Total contribution	***€ 69,398***

Poland sends each Partner an invoice per year, to which standard financial conditions apply.

Access to vessels
On top of *Council Regulation 199/2008* (Section 2, Article 11), each Partner ensures access to its fleet for the observers under this agreement. Denied access to vessels does not exempt a Partner from legal or financial obligations.

Term
This agreement commences on January 1, 2017. With exception of financial obligations, this agreement ends on December 31, 2018. This agreement, with exception of financial obligations, is subject to dissolve prior to this date in case the pelagic fishery in the SPRMFO area by EU vessels closes.

Signatures

Member State	Name	Function	Signature
Germany	Christoph Stransky	National Correspondent	Date:
Lithuania	Indre Sidlauskiene	Director, Fisheries Service under the Ministry of Agriculture of the Republic of Lithuania	Date: _____
The Netherlands	Sieto Verver	Head Centre for Fisheries Research	Date:
Poland	Ireneusz Wójcik	Head of Department (NMFRI), DCF Coordinator	Date:

Annex 1: "Biological Data Collection of pelagic fisheries in SPRFMO waters in compliance with the DCF".
Annex 2: "Observer Manual for biological data collection in SPRFMO waters".