JRC Scientific and Technical Reports

Scientific, Technical and Economic Committee for Fisheries (STECF)

Evaluation of Fishing Effort Regimes in the Baltic Sea (STECF-11-11)

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This report was reviewed by the STECF during its 38th plenary meeting held from 07 to 11 November, 2011 in Brussels, Belgium

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SCIENTIFIC, TECHNICAL AND ECONOMIC COMMITTEE FOR FISHERIES (STECF)

Evaluation of fishing effort regimes in Baltic (STECF-11-11)

THIS REPORT WAS REVIEWED DURING THE PLENARY MEETING HELD IN BRUSSELS 7-11 NOVEMBER 2011

Request to the STECF

STECF is requested to review the report of the **EWG-11-11** held from September 26-30, 2011 in Cadiz, evaluate the findings and make any appropriate comments and recommendations.

Introduction

The report of the Expert Working Group on Evaluation of fishing effort regimes in the Baltic (EWG-11-11) was reviewed by the STECF during its 38th plenary meeting held from 7 to 11 November, 2011, Belgium. The following observations, conclusions and recommendations represent the outcomes of that review.

STECF observations

General observations

The STECF expert working group on effort management EWG -11-06 met in Galway in June 2011 and in Cadiz in September 2011. The TOR for the meetings included conducting effort and catch reviews for the Baltic, Annex II A, B and C stocks, Celtic Sea, Bay of Biscay and Deep Sea/Western waters. The data call for this meeting was sent out in February 2011. A number of Member States submitted material in good time, several submitted data close to the effort meeting and some elements of the material were obtained in the first day of the meeting. Only Spain failed to provide any inputs in due time.

STECF notes that the procedures for automatic and manual checks introduced by the JRC have provided the group with more time to address the different ToRs.

Specific comments

STECF notes that even if further progress has been made, the information is still incomplete from a number of nations. In particular it is observed that only limited data were provided for

discards and landings for most species and that the data presented in the report only relate to cod.

STECF notes how overall effort in the Baltic has reduced substantially.

STECF notes that due to incomplete information on special conditions, it is not possible to quantify the extent to which the BACOMA trawl has been adopted.

In general, the overall available number of fishing days does not appear to have been restrictive in either of the main areas of the cod fishery. Deployed effort in days was generally well below the days available to all fleets.

STECF conclusions

STECF endorses the main findings and conclusions of the report of the EWG 11-11.

Given the limited data on discards, estimates of catch and CPUE are not reliable and should be interpreted with caution. Furthermore, management decisions based on such estimates may give rise to unintended outcomes.

REPORT TO THE STECF

EXPERT WORKING GROUP ON EVALUATION OF FISHING EFFORT REGIMES IN THE BALTIC (EWG-11-11)

Cadiz, Spain, 26-30 September 2011

This report does not necessarily reflect the view of the STECF and the European Commission and in no way anticipates the Commission's future policy in this area

1 EXECUTIVE SUMMARY

Review of Baltic Sea catch and effort in the context of the management plan for Baltic cod Council Regulation (EC) No 1098/2007

- STECF EWG made further progress with the available data and notes that scope of data increased. Nevertheless, the group continues to be hampered by the lack of adequate fishing effort information from some nations, and incomplete information from a number of nations.

- The limited availability of discard data and concerns over the extent to which it is representative means that estimates of catch and CPUE require to be used cautiously.

- Shortfalls in landings and discards data for many species means that it was only possible to consider cod in this report.

- On the basis of the partial effort data supplied, the overall effort in the Baltic has reduced substantially, particularly since 2003. Given that there were marked reductions in Area A (a further 16% in regulated gears between 2009 and 2010), and given that this region is particularly important for cod, it seems likely that effort on cod has decreased.

- Owing to incomplete information on special conditions, it is not possible to quantify the extent to which the BACOMA trawl has been adopted.

- Landings and discards of cod are estimated to have declined markedly since 2004 (landings declined by 27% relative to 2004).

- There are regional differences in the importance of different gears for the capture of cod. In areas A and B otter trawls are ranked highest whereas in other areas gillnets are more important.

- Under 8m vessels account for about 3% of landings of cod in the overall Baltic but this is an underestimate since only a few countries supplied data.

- There is very little evidence of temporal changes in spatial effort distribution

- In general, the overall available number of fishing days does not appear to have been restrictive in either of the main areas of the cod fishery. Used days were generally well below the days available in all fleets.

2 INTRODUCTION

The STECF sub-group on "fishing effort management" held its first annual meeting in Galway in Ireland, 6-10 June 2011 (EWG-11-06). A follow-up meeting (EWG 11-11) was called to order in Cadiz, Spain, 26-30 September 2011. A progress report from the first meeting was presented at the June STECF plenary. This report summarises data presented and the discussions and results of both meetings.

2.1 Terms of Reference

1. To provide historical series, as far back in time as possible, according to each of the following fishing areas:

Areas covered by the R(EC) No 1098/2007 (Baltic Sea)

(i) ICES division 22 to 24,

(ii) ICES divisions 25 to 28, by distinguishing areas 27 and 28.2

(iii) ICES divisions 29 to 32,

The data should also be broken down by

Member State;

regulated gear types defined in **R(EC) No 1098/2007** (and by associated special conditions defined in the Appendix 6 of the data call);

unregulated gear types catching cod in fishing areas (i), (ii) and (iii);

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days and

b. Fishing activity measured in days absent from port (according to definitions adopted in R(EC) No 1098/2007) and fishing capacity measured in kW, GT and in number of vessels concerned per year.

c. Catches (landings and discards provided separately) of cod in the Baltic Sea by weight and by numbers at age.

d. Catches (landings and discards provided separately) of non-cod in the Baltic Sea by species, by weight and by numbers at age

e. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of cod in the Baltic Sea (such data shall be issued by Member state, fishing area (i), (ii) and (iii) and fishing gear concerned in accordance with Art. 3 of **R(EC) No 2187/2005**).

2. If relevant data are available, to comment on the quality of estimations on total catches and discards.

3. To assess the fishing effort and catches (landings and discards) of cod in the Baltic Sea and associated species corresponding to vessels of length overall smaller than 8 metres in each fishery, by gear and by Member State according to sampling plans implemented to estimate these parameters.

4. To assess fishing mortality by Member State and regulated gear types corresponding to the effort deployed and the calculated maximum effort allocated.

5. To quantify the evolution of the calculated maximum effort allocated to the cod fleet (regulated gear types) in relation to the effort really used by that fleet and highlight possible shifts between metiers.

6. To assess the catches (absolute values, landings and discards provided separately) and effort deployed in 2010 corresponding to vessels participating in trials on fully documented fisheries, by species, by gear and Member State, with the aim to determine the quality of the data submitted, the potentials and limitations of the fully documented fisheries and to what extend in particular catches (absolute values, landings and discards provided separately) differs from the figures estimated by the STECF for vessels not participating in these trials.

7. To plot, the spatial distribution of the fishing effort of regulated gears deployed in the Baltic Sea, according to data reported in logbooks on the basis of ICES statistical rectangles and to provide interpretation of any changes or trends.

8. To highlight any unexpected evolutions shown by the data which are not in line with general trend.

9. To assess the correlation between fishing mortality rates and the effort deployed by Member States.

If a good correlation between fishing mortality rates and spend fishing effort is found, the WG is asked to explain or describe it.

In case the correlation between the nominal fishing effort and the fishing mortality rates is weak, the WG is asked to describe whether this is due to a wrong descriptor (fe wrong descriptor for fishing capacity) or due to other factors.

2.2 Participants

Participants of the 2 meetings are grouped by STECF members, invited experts, JRC experts and EU-Commission representatives and are listed in Appendix 1.

In 2007, STECF and its subgroups adopted a new working style with the opportunity for stakeholders to participate as observers to improve transparency in scientific evaluations. No stakeholder participants attended in 2011.

2.3 History of technical measures and effort restrictions in the Baltic

The International Baltic Fishery Commission (IBSFC) regulated the cod fishery in the Baltic by TACs and technical measures until 2005. Up to 1994 the minimum mesh size (MMS) for the in the Baltic cod fishery was 105 mm and the minimum landing size (MLS) 33 cm. In 1994 the IBSFC decided 4 to increase the MMS to 120 mm in diamond mesh and to increase the minimum landing size of cod to 35 cm

In 2002, following the results from the BACOMA project (Improving Technical Management in Baltic Cod Fishery) a 120 mm BACOMA exit panel in a 105 mm codend was introduced. Additionally, the MMS in the diamond mesh increased from 120 to 130 mm. However, the effect of the implementation of 120 mm BACOMA window in cod trawls in the Baltic Sea was virtually eliminated by the technical response by the industry, not allowing expected effect on selectivity of cod trawls and thus the effective implementation of BACOMA exit window.

In 2003 the 130 mm diamond mesh was prohibited allowing only trawls equipped with a 110 mm BACOMA window (a decrease from 120mm). The MLS of cod was also increased from 35 cm to 38 cm.

In 2006 another the, T90 (mesh size110 mm) gear type was introduced for cod trawl fisheries in the Baltic Sea in addition to the BACOMA 110 mm trawls.

Temporal closures and effort regulation

From 1995 onwards there has been implemented a three month summer closure (1 June to 31 August) for all cod fishery in the Baltic Sea. In 2006 and 2007 there were additional closed periods imposed in addition to the summer ban. From 2008 the terminology changed and the term 'allowed days at sea' was introduced, the summer closure period was, however, retained. Fishing has to be stopped when TACs were exhausted even when days at sea would be left.

The text table below shows the effort restrictions for trawls, Danish seines, gill nets, entangling nets or trammel nets with mesh size >=90mm and longlines

Area	2006 (closed days)	2007(closed days)	2008 (days at sea)	2009 (days at sea)	2010 (days at sea)	2011 (days at sea)
22-24	92 273	117248	223	201	181	163
25-28	119* 246	183* 182	178**	160**	160 **	160 **

*There was no closed periods in Sub-divisions 28-32 in 2006-2007

** There was no closed periods in Sub-divisions 29-32 in 2008-2011

2.4 Description of the current management plan or Baltic cod

The EC established the Multiannual Management Plan (MMP) for the cod stocks in the Baltic Sea and for cod fisheries in September 2007 (EC 1098/2007). The MMP should ensure the sustainable exploitation of the cod stocks concerned by gradually reducing and maintaining the fishing mortality rates at certain minimum level.

For Western Baltic cod (SD 22-24) the aim is to reach and maintain a fishing mortality rate at 0.6 for ages 3-6. For Eastern Baltic cod (SD 25-32) the target fishing mortality was set at 0.3 for ages 4-7 in order to rebuild and maintain the stocks and fisheries. This should be reached through a stepwise reduction of fishing mortality (F) by 10% in relation to the fishing mortality estimated for the preceding year. However, the plan also sets a maximum change of 15% of the TAC between consecutive years as an overarching rule, unless the fishing mortality is estimated to be higher than 1 for Western Baltic cod and higher than 0.6 for Eastern Baltic cod. In these cases the TAC shall be set in correspondence to the reduction of fishing mortality by 10%. Alongside the reductions in F, the plan also specifies a 10% reduction in total number of fishing days at sea per year until the target F has been reached. This rule applies to trawls, Danish seines, gill nets, entangling nets or trammel nets with mesh size >=90mm and longlines. In addition, fishing with the aforementioned gears and net types is totally closed from 1st to 30th April in SD 22-24 and from 1st July to 31st August in SD 25-28. However, by way of derogation, fishing vessels with an overall length between 8 and 12 meters are permitted to use up to five days per month divided into periods of at least two consecutive days from the maximum number of days absent from port during the closed periods. The plan is complemented with a number of additional closed areas and as another effort restriction, the maximum fleet capacity measured in kW is limited to the reference value calculated for 2005 for each member state. ICES evaluated the management plan in 2009 and consider it to be in accordance with the precautionary approach.

2.5 Allocated TACs for Baltic cod by member state

In 2010 TACs for cod in the western Baltic were mainly shared between Denmark (43% of total TAC), Germany (21%), Sweden (16%) and Poland (12%) according to Council Regulation (EC) 1322/2008 (Figure 2.5.1). Highest TAC shares for Eastern Baltic cod (Figure 2.5.2) belonged to Poland (26%), Sweden (23%), Denmark (23%) and Germany (9%). The remaining TACs are shared between Estonia, Latvia, Lithuania and Finland.

Species:	Cod *Gadus morhua*	Zone:	EC waters of subdivisions 22-24 COD/3B23.; COD/3C22.; COD/3D24.
Denmark	7 130		
Germany	3 487		
Estonia	158		
Latvia	590		
Lithuania	383		
Poland	1 908		
Finland	140		
Sweden	2 541		
EC	16 337		
TAC	16 337	Analytical TAC. Article 3 of Regulation (EC) No 847/96 does not apply. Article 4 of Regulation (EC) No 847/96 does not apply. Article 5(2) of Regulation (EC) No 847/96 applies.	

Figure 2.5.1: TACs available to members states for western Baltic cod (SD 22-24) in 2010 as listed in council regulation (EC) 1226/2009.

Species:	Cod *Gadus morhua*	Zone:	EC waters of subdivisions 25-32 COD/3D25.; COD/3D26.; COD/3D27.; COD/3D28.; COD/3D29.; COD/3D30.; COD/3D31.; COD/3D32.
Denmark	10 241		
Germany	4 074		
Estonia	998		
Latvia	3 808		
Lithuania	2 509		
Poland	11 791		
Finland	784		
Sweden	10 375		
EC	44 580		
TAC	Not relevant	Analytical TAC. Article 3 of Regulation (EC) No 847/96 does not apply. Article 4 of Regulation (EC) No 847/96 does not apply. Article 5(2) of Regulation (EC) No 847/96 applies.	

Figure 2.5.2: TACs available to member states for Eastern Baltic Cod (SD 25-32) in 2010 as listed in council regulation (EC) 1226/2009.

2.6 Report notations

To identify the categories assessed for effort and catch this working group adopts terminology that matches definitions made in the management plan for Baltic cod (R(EC) 1098/2007). This means that all trawls, Danish seines, gill nets, entangling nets or trammel nets with mesh size >=90mm and longlines were assumed to be regulated gears (Table 2.6.1).

Remaining gear and mesh size combinations were taken to be unregulated gears (Table 2.6.2).

However, the definition in the cod management plan is not consistent with regulation R(EC) No 2187/2005). According to the latter regulation it is only permissible to fish for cod with mesh size >=105mm using otter trawls, Danish seines or similar gears. When using static gears mesh size has to be above 110mm. In TOR 1e it is explicitly asked to calculate Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of cod in the Baltic Sea by member state, fishing area and fishing gear concerned in accordance with Art. 3 of R(EC) No 2187/2005. However, to be consistent within the report we also used the gear categories from the cod management plan (Council Regulation (EC) 1098/2007) for this TOR.

Sub-Areas were defined according to Council Regulation (EC) 1098/2007. This means that Subdivision 22-24 is declared as fishing area "A", Subdivision 25-28 as "B" and Subdivision 29-32 as "C". Effort trends and catch compositions for Subdivisions 27 and 28.2 separately were not analysed due to data problems and limited time available.

Table. 2.6.1 Regulated gear types, mesh sizes and special conditions as defined in Reg. (EC) No. 1098/2007.

Gear	Mesh Size	SPECON
OTTER	>=90mm	none
OTTER	>=90mm	BACOMA
Danish Seine	>=90mm	none
Danish Seine	>=90mm	BACOMA
Pelagic Trawl	>=90mm	none
Pelagic Trawl	>=90mm	BACOMA
Pelagic Seine	>=90mm	none
Pelagic Seine	>=90mm	BACOMA
Gill net	>=90mm	none
Trammel net	>=90mm	none
BEAM	>=90mm	none
Longlines		

Table 2.6.2 Unregulated gear types, mesh sizes and special conditions as defined in Reg. (EC) No. 1098/2007.

Gear	Mesh Size	SPECON
OTTER	<90mm	none
Danish Seine	<90mm	none
Pelagic Trawl	<90mm	none
Pelagic Seine	<90mm	none
Gill net	<90mm	none
Trammel net	<90mm	none
Beam Trawl	<90mm	none
DREDGE	all	none
POTS	all	none

2.7 Data call

On 23th February 2011 the Commission's DG Mare invited the relevant institutes to electronically submit fleet specific catch and effort data. The data call can be found in Annex 1.

2.8 Data policy, formats and availability

Originally, the catch and effort data base structures used by STECF-SGMOS (former title) and were developed by the ICES Study Group on the Development of Fishery-based Forecasts (ICES CM 2004/ACFM:11, 41 pp.) with amendments required for the review of fishery regulations. The format of the fleet specific data call from 23rd February 2011 on catches including discards and effort is given in Annex 1 of this report.

2.8.1 Data policy

Experts reported on national data policies for the national fleet specific landings, discards and effort data and generally supported the continued use of the data by STECF-SGMOS but with required permission for any use by other scientific or non-scientific groups. This implies that national experts need to be contacted for their consent before granting access to the data.

JRC requests to be informed about applications for data access and any notifications.

2.8.2 Nominal fleet specific effort data 2000-2010

Member states were required to deliver data for 2010 (plus 2003-2009 if appropriate) in the format outlined in the data call from 23th February 2011 (see Annex 1). In the following section the focus is on deviations from the data call (Table 2.8.2.1).

A full set of data was provided by Germany. Sweden provided data from 2003 onwards. Poland provided data from 2004 onwards. Denmark provided no information on special conditions, i.e. no vessels fishing with BACOMA-trawls could be identified based on available logbook data. There are also no separate data on effort in sub-divisions 27 and 28.2. Latvia only provided data for 2003 to 2010. Estonia and Lithuania provided data from 2005

onwards i.e. for the period of participation in DCR/DCF but only for vessels above 12 m. Data from Finland were not consistent with the data call and could not be taken into account in the analyses.

A full data set on fishing activity (measured in days at sea) was only delivered by Germany (Table 2.8.2.2). All other countries either delivered data only for some years and/or only for regulated gears.

Table 2.8.2.1. Shortcomings in 2003-2010 effort data reports provided by EU member states with and without special conditions.

Country	**Effort data 2003-2010**
Denmark	no special conditions, no data for Subdivisions 27 and 28.2 separately
Estonia	only for vessels >12m
Finland	no consistent data with the data call
Germany	none
Latvia	none
Lithuania	none
Poland	none
Sweden	none

Table 2.8.2.2. Shortcomings in 2003-2010 fishing activity data reports provided by EU member states with and without special conditions.

Country	**Fishing activity data 2003-2010**
Denmark	only for some regulated gears
Estonia	only for 2005-2010
Finland	no consistent data with the data call
Germany	none
Latvia	none
Lithuania	none
Poland	none
Sweden	none

2.8.3 Effective fleet specific effort data by rectangle 2003-2010

Member states were required to deliver data in the format outlined in the data call from 23rd February 2011 (see Annex 1). In the following section the focus is on deviations from these data calls (Table 2.8.3.1).

A full set of data was provided by Germany and Latvia. Denmark provided no information on special conditions and no data for 27 and 28.2 separately.

Finland delivered no data. Lithuania and Estonia delivered data for 2005-2010 and Sweden for 2003-2010. Poland delivered no spatially disaggregated effort data for 2003.

Table 2.8.3.1. Shortcomings in 2003-2010 spatial effort data reports provided by EU member states.

Country	**Effort data 2003-2010**
Denmark	no specons, no data for 27 and 28.2 separately
Estonia	none
Finland	no consistent data
Germany	none
Latvia	none
Lithuania	only for 2005-2010
Poland	only for 2004 to 2010
Sweden	only for 2003-2010

2.8.4 Fleet specific landing and discard data 2003-2010

Member states were required to deliver data in the format outlined in the data call from 23rd February 2011(see Annex 1). In the following section the focus is on deviations from these data calls (Table 2.8.4.1).

A full set of data on age disaggregated landings and discards were provided by Latvia and Germany only. For Denmark information on special conditions is missing as well as catches for 27 and 28.2. Finland did not deliver data consistent with the data call. Estonia delivered no discard data and information on landings and for mesh sizes for the vessels <12 m. Lithuania, Poland and Sweden delivered catch data for cod only. Lithuania provided data for 2005 – 2010 only. Given the available data it was decided to focus on cod catches only in this report.

In addition, according to the experts, none of the national data bases includes unallocated landings. However it is understood that the implementation of MAP for the Baltic cod stocks has reduced the unallocated landings to marginal. Assignment of special conditions is based on best expert knowledge and data availability.

STECF-SGMOS faced difficulties regarding the description of the quality of the fleet specific estimates of discards and age disaggregated catches, mainly due to lack of requested information (no. of discard samples, fish measured and aged). Therefore, TOR 2 was not addressed.

Table 2.8.4.1: Shortcomings in 2003-2010 landings data reports provided by EU member states.

Country	**Landings data 2003-2010**
Denmark	no specon, no data for 27 and 28.2 separately
Estonia	mesh sizes not consistent for fleet segment <12 m
Finland	data 2003-2010, no consistent with data call
Germany	none
Latvia	none
Lithuania	none
Poland	none
Sweden	landings, age composition only cod

Table 2.8.4.2: Shortcomings in 2003-2010 discard data reports provided by EU member states.

Country	**Discard data 2003-2010**
Denmark	no specon, no data for 27 and 28.2 separately
Estonia	data for 2005-2010
Finland	no consistent data
Germany	none
Latvia	none
Lithuania	only 2005-2010, no specon, only cod
Poland	only for 2004-2010, discard only for cod
Sweden	discard, age composition only cod

2.8.5 Fleet specific landing and effort data 2003-2010 of small boats (<8m)

The data were provided by Denmark, Germany, Latvia, Lithuania Sweden and Poland. The data are evaluated in section 3.6.

Denmark: Under 8m data were provided by Denmark.

Estonia: Estonia provided data for 2005-2010.

Latvia : Latvia provided data for the 2003-2010.

Lithuania: Lithuania provided for 2005-2010 excl. 2008,

Germany: Germany provided aggregated data regarding the fleet of vessels <8m. The data cover landings by area and species. However, no mesh size information is available from the landings declarations given in the years 2003-2010.

Sweden: Effort and landing data for vessels less than 8m were made available by Sweden in the same format as for larger vessels. Vessels <8 m that are using trawl and demersal seines are obliged to use the same logbook as larger vessels. Vessels <8m using other gears are using the "coastal fishing journal" which predominantly follows the same structure as the standard logbook. Sweden reported landings for vessels (<8m) for 2003-2010.

Poland: Vessels less than 8 meters are obliged to provide monthly catch reports where amount of fish caught as well as fishing days are reported by fishing area and gear deployed. Data for this vessel's group was provided in the same format as for larger vessels.

2.9 Estimation of fleet specific international landings and discards

The estimation of fleet specific international landings and discards is based on linking the information about fleet specific catch and discards at age among countries and replacing invalid or missing values with aggregated information from other countries.

Reported data by country are aggregated by fleet properties and raised to the officially reported landings or discards in the SGDFF 2004 (ICES 2004) format. Fleet definitions are based on area, year, quarter, gear, mesh size groups, special conditions as defined in Council Regulation (EC) 41/2007 Annexes 2A-C and national fisheries (metiers) definitions.

The data management and estimation procedures follow the simple raising strategies outlined below:

Data management:

The fleets are classified to their management areas, years, quarters and effort regulated gear groups disregarding the countries and fisheries (metiers).

Estimation of discard rates by fleet (DR):

Let the following notation be: D=discards, L= landings, *snf* = sampled national fleet, *unf* = unsampled or poorly sampled national fleet.

A poorly sampled fleet is defined as such when $SOP_{snf} < 0.75$ or $SOP_{snf} > 1.25$

The available landings and discards are aggregated (summed) by fleets and mean discard rates are calculated:

$$DR = \frac{\sum_{snf} D_{snf}}{\sum_{snf} (L_{snf} + D_{snf})}$$ with $D_{snf} \geq 0$ and with $L_{snf} + D_{snf} > 0$ otherwise 0

(means no catch)

Fleet specific discard amounts are calculated when no discard information is available by

$$D_{unf} = \frac{L_{unf} . DR}{(1 - DR)}$$ when D_{unf} is null (empty)

Fleets without any discards information remain as such.

Estimation of landings in numbers and mean weight at age for non or poorly sampled national fleets

Let i be the age reference

Landings in numbers ($N_{snf,i}$) and mean weight at age ($W_{snf,i}$) are aggregated by sampled fleets when $SOP_{snf} \geq 0.75$ and $SOP_{snf} \leq 1.25$.

Raising of numbers and mean weights at ages 0-11 to non or poorly sampled fleets by

$$N_{unf,i} = \frac{\sum_{snf}(N_{snf,i}).L_{unf}}{\sum_{snf} L_{snf}}$$

$$W_{unf,i} = mean(W_{snf,i})$$

The mean weights are unweighted and an appropriate weighing procedure, i.e. number of fish measured, should be explored.

Fleets without any landings at age information remain as such.

Estimation of discards in numbers and mean weight at age for non or poor sampled fleets

Discards in numbers ($N_{snf,i}$) and mean weight at age ($W_{snf,i}$) are aggregated by sampled fleets when $SOP_{snf} \geq 0.75$ and $SOP_{snf} \leq 1.25$ along the same procedure as for the landings.

Raising of numbers and mean weights at ages 0-11 to non or poorly sampled fleets by

$$N_{unf,i} = \frac{\sum_{snf}(N_{snf,i}).D_{unf}}{\sum_{snf} D_{snf}}$$

$$W_{unf,i} = mean(W_{snf,i})$$

The mean weights are unweighted. An appropriate weighing procedure, i.e. number of fish measured, should be explored.

Fleets without any landings at age information remain as such.

An example of this raising procedure is given in Table 15.2.3.2 under the header "Discards", the values between parenthesis are the estimated values.

Catch at age estimation including discards

Catches by fleets are estimated as the sum of landings and discards. Missing discards are ignored.

Catches at ages 0-20 in numbers are estimated as the sum of landings at age in numbers and discards at age in numbers. Missing discards are ignored.

Mean weights at ages 0-20 are estimated at weighted means (according to ratios of landings at age and discards at age to catches at age).

Finally, all fleets' catches and catches at ages in numbers and mean weights are aggregated finally over management areas, years and effort regulated gear groups.

Fleets without any information on discards or landings at age and discards at age remain unchanged and need to be raised separately on an agreed basis in case that they constitute significant landings.

The STECF-SGMOS notes that sampling of catch at sea including discards is expensive and difficult. This means that sampling coverage tends to be rather limited, and estimates of discards are subject to high uncertainty. This is true of all the discard data used here, and in some cases the discard estimates presented represent the first attempt to use the discard data from some fisheries in an advisory context. Where the coverage is considered adequate to estimate the overall catch compositions of specific fleets these are presented, but they are intended only to provide an approximate indication of fleet catch compositions. In cases where there are little data, the estimated discard rates may be biased and imprecise (Stratoudakis *et al.*, 1999). The mean weights are estimated as un-weighted means. This results in a biased estimate. An appropriate weighing procedure, i.e. number of fish measured, should be explored.

STECF-SGMOS further notes that the approach of discard estimation applied is generally consistent with the method used in the discard estimates published by the FAO (Kelleher, 2004). However, the group also notes that the design of a discard sampling scheme might differ depending on whether the objective was to estimate total discards, or discard for specific fleets. In the current context estimates from sampling schemes designed for the former purpose are being used for the latter purpose which again means the estimates should only be used with caution. Where this is the case, comparisons are made between the estimates of total discards used for assessment purposes, and the fleet-specific estimates used here.

With regard to age composition data, STECF-SGMOS notes that the analyses presented here are intended to quantify the catch compositions of the various fleets and gears of interest. For this purpose it is the species compositions and the estimated landings and discards that are of primary importance, with the age compositions being only of secondary importance. Applying the age compositions to the national catches by fleet and gear is a complex process not least because it typically involves considerable filling-in to account for categories which do not correspond to those within national sampling schemes. It would make any future data compilation and analyses much more efficient if age composition data were not required. While there is clearly a trade-off between efficiency on one hand and providing additional information on the other, the group notes that in the current context the age composition data

add little information. As a result it proposes that any future data requests and analyses should be restricted to age-aggregated information.

2.10 Treatment of CPUE data

STECF-SGMOS notes that CPUE series are often interpreted and used as stock abundance indicator. However, STECF-SGMOS emphasises that the presented trends in CPUE by fleets are subject to selective fishing strategies (area, gear, mesh size etc.) and thus maybe biased. On the other hand, CPUE derived from targeted fisheries may provide very useful information on stock abundance trends. Furthermore, it must be taken into consideration that the majority of the CPUE trends represent only overall weights in the landings (LPUE) without discards or with poorly estimated discards. Ideally, the CPUE should be based on age disaggregated abundance rather than overall weights and reflect technological creep when trends over longer periods are evaluated. Time constraints prevented STECF-SGMOS from estimations of CPUE trends by age and full evaluations of these. STECF-SGMOS recommends that CPUE in units of numbers at age/(kw*days) be estimated and compared with the recent assessment results provided by ICES.

STECF-SGMOS presents CPUE by derogations in units of g/(kW*days) Where discard estimates are not available, the trends in LPUE (landings per unit of effort) are given in the same units**. STECF wishes to stress again that great care should be used in the interpretation of these data owing to the incomplete nature of information on discarded fish.**

2.11 Summary of effort and landings by 'unregulated' gears

This report also includes a detailed analysis of effort and catches from gear types not regulated in the cod management plan Commission Regulation (EC) 1098/2007. A definition of regulated and unregulated gear types can be found in section 2.6.

2.12 Presentation of information on vessels under 8m

This STECF-SGMOS report provides an overview of landings data provided by the experts regarding their national fisheries of vessels <8m, which are not obliged to report their landings through logbooks but rather do landings declarations. In this report an attempt is made to compile available information for each sub-area into overall figures. Since not all countries were able to fulfil this part of the data call, the aggregate estimates for each region must be considered as minimum estimates. Nevertheless, STECF wishes to stress that the situation with available data on small vessels has improved significantly since the last report of SGMOS.

2.13 Presentation of spatial distribution of effort

STECF-SGMOS notes that minimum geographic resolution in the available logbook information on landings and effective effort is by ICES rectangle and considers analyses to only be possible at that resolution at the present time. A full set of figures is available on the website but a selection of key gears (r-otter and r-gill) is included in this report.

2.14 Effort management categories and Data Collection Framework (DCF) metiers

In this report metier definitions were made in line with the current cod management plan for the Baltic. However, metier definitions also exist from the DCF regulations. At present these represent two rather different systems for classifying fishing activity.

From the above descriptions, it is clear that the DCF matrix represents a much more detailed approach to describing fishing activity than the effort management categorisation in the cod management plan. In particular, the DCF approach involves more detailed information on gear type and also on catch composition (in relation to the different target assemblages). In contrast, the effort management categories include only information corresponding to DCF level three (gear group) and level six (mesh size & selective devices). As a result, an effort management category may include both multiple gear types and multiple target assemblages. The latter information is more critical, given that the intention of effort management is to protect specific components of the target assemblages.

In order to identify the correspondence between effort management categories and DCF métiers, it will be necessary to review the effort management categories and identify cases where these may involve multiple gear types and/or multiple target assemblages. A future review should also identify cases where special conditions associated with a particular grouping involve a difference in gear selectivity characteristics or target assemblage. This was beyond the scope of the present meeting.

3 REVIEW OF THE EFFORT REGIME IN THE CONTEXT OF THE COD MANAGEMENT PLAN (COUNCIL REGULATION (EC) 1098/2007)

3.1 General remarks

In general, the data situation for the Baltic has improved slightly compared to last year but is still rather poor. Polish effort and catch data are now available from 2004 onwards. The same applies for Estonia, who provided for the first time the full dataset since 2005 (since the accession to the DCF). This, however, implies that effort and catch trends before 2005 can no longer be taken into account due to bias unless Polish data would be available also for these years. Similar, data from Sweden are available from 2003 onwards only. Also information from Estonia could only be used for the fleet segment >12 m since the effort data were not available for the boats <12m. In addition, data from Finland did not match the formats needed for the inclusion in the data base. Therefore these data were not used in the analyses.

STECF-SGMOS notes that assignment of special conditions is based on best expert knowledge and data availability. Data errors may exist taking into consideration the very large size of data bases involved. Specific technical or gear configurations defined in the special conditions are often not registered in the logbook databases, i.e. BACOMA and T90. STECF-SGMOS notes that it was not possible to distinguish between trawls equipped with special condition BACOMA or T90 for all member states. In addition, it is assumed that all Otter Trawls, Danish seines or similar gears with mesh size >= 105mm are BACOMA trawls from 2006 onwards (e.g., German data) in accordance with Council Regulation (EC) 2187/2005. Denmark provided no information on the usage of BACOMA trawls at all.

Therefore, analyses on the usage of BACOMA trawls have to be seen as preliminary and have to be interpreted with care.

Several countries only delivered catch data for cod and not for other species. Therefore, it was decided to focus on cod catches by gear category, sub-area and member state in this report. Catches from other species (i.e. herring and sprat) were not analysed.

3.2 Trends in nominal effort 2000-2010 by gear category, sub-area and member state

Table 3.2.1 lists the trends in effort for gear categories defined in the cod management plan Council Regulation (EC) 1098/2007 in kW*days for the whole Baltic. Table 3.2.2 lists the trends in effort by gear category, sub-area and member state. Table 3.2.3 lists effort trends by gear category and sub-area. Figures 3.2.1 – 3.2.6 show effort trends in regulated and unregulated gear categories by sub-area.

In accordance with the TOR respective tables by gear-category, sub-area and member states in GT*days (gross tonnage), activity (in days absent from port) and capacity (number of vessels) are available on the web. STECF-SGMOS emphasises that the number of vessels need to be interpreted with care and cannot be added across gear categories as the individual vessels may have been engaged in more than one of the defined fleets and thus could be multiple counted.

There are marked reductions in effort measured in kW-days especially for regulated gears in accordance with Council Regulation (EC) 1097/2007, the total effort deployed in the Baltic in 2010 was 2 % lower compared to 2004 (Table 3.2.1). A reduction in total effort could be observed for sub-area A and B (Figures 3.2.1 and 3.2.3). Only in Area C the effort deployed with unregulated gears fluctuated with a slight decreasing trend (Figure 3.2.5). Since the majority of cod catches stem from areas A and B (see section 3.3), the decrease in total effort in areas A and B most likely decreased the fishing pressure on Baltic cod.

Table 3.2.4. describes the relative annual effort dynamics in Baltic cod r-GILL and r-_OTTER fisheries in 2004-2010. The total effort showed a consistent decreasing trend in areas A and 28.2. The decrease could be observed also in area B, except for the 2010 which resulted from effort deployed by r-OTTER with T90. The effort dynamics in area C did not show any particular trend.

The decrease in total effort for the main gear catching cod in areas A and B (r-Otter, see section 3.5) was obvious for all member states (Table 3.2.2). When combining specon BACOMA and none, the reductions were most pronounced for Denmark (-52%) and Germany (-61%) in area A and most pronounced for Poland (-72%) and Sweden (-55%) in area B. In contrast, the effort for r-Gill (the second most important gear, see section 3.5) increased for Denmark and Germany in Area A (by 23% and 35% respectively). This indicates a certain shift between metiers. In area B the effort decreased also for r-Gill substantially for all member states (-75% for Poland and for Latvia). The sharp increase of pelagic effort in 2004 – 2005, described in the Figure 3.2.5 can be explained by the inclusion of Estonian data from 2005-2010 which contained substantial pelagic effort.

The usage of BACOMA-trawls increased over the years (see Figures 3.2.2; 3.2.4; 3.2.6;). However, as already mentioned several member states were not able to identify vessels

fishing with BACOMA-trawls from logbook data. Therefore, the increase in the usage of BACOMA-trawls is most likely underestimated substantially and trends are highly uncertain.

Fully Documented Fishery

Table 3.2.2. and Figures 3.2.1 and 3.2.3 include the information on fully documented fishery what was made available to the Expert Group. The data were provided by Denmark for the Areas A and B in 2010. The fully documented fishery represents 0.33% of the total effort deployed in the respective areas in 2010. The reported landings of cod from the fully documented fishery amounted to 271 t in area A and 746 t in area B (total 1018 t). No discards were reported (Table 3.2.2.) The Group considered the data too limited to perform any further analyses at that stage.

Table 3.2.1 Trend in nominal effort (kW*days at sea) by gear categories according to Council Regulation (EC) 1098/2007, 2004-2010. Data qualities are summarised in Section 2.8.2 and Table 2.8.2.1. An "r" in front of the gear type indicates regulated gears. Gear types without an "r" are non-regulated gears (see also section 2.6). **Data from Sweden and Poland were only available from 2003 or 2004 respectively. Relative change from 2004 to 2010.**

REG GEAR COD	SPECON	2004	2005	2006	2007	2008	2009	2010	rel.change
BEAM	none		132	1090	881	27566	16298	884	1.00
DEM_SEINE	none	50829	31250	20892	20597	12522	5372	1071	-0.98
DREDGE	none	78384	72955	97700	110931	45088	57512	75229	-0.04
GILL	none	1546346	1757929	1435737	1461031	1174325	1029740	727603	-0.53
none	none	96938	176122	205696	192267	168134	194458	127557	0.32
OTTER	none	2701614	2357632	1902410	1587948	1289005	1463951	1241234	-0.54
PEL_SEINE	none	2499				3528	16467	13674	4.47
PEL_TRAWL	none	14923907	61626098	45654342	39215489	43054590	39794376	29670035	0.99
POTS	none	923445	920474	731162	628796	545910	485911	507294	-0.45
r-BEAM	BACOMA					3867			0.00
	none							129	1.00
r-DEM_SEINE	BACOMA			35178	46741	46182	62042	36621	1.00
	none	404107	276935	262342	242811	181854	122961	96238	-0.76
r-GILL	none	8623753	8032711	7222578	6131471	5674829	4606515	4189205	-0.51
r-LONGLINE	none	1267926	1525115	1501404	882666	678650	804120	819419	-0.35
r-OTTER	BACOMA	7336592	6385809	8283762	6317263	5304770	4074979	4223497	-0.42
	none	6112699	6193078	3609936	2623039	2489034	2198556	2006187	-0.67
	T90						9536	160701	1.00
r-PEL_TRAWL	BACOMA	1045770	550413	1618071	1570607	855252	348369	199507	-0.81
	none	249065	219558	122741	37349	3841	27748	11355	-0.95
r-TRAMMEL	none	238973	474426	432987	502243	541596	605039	466646	0.95
TRAMMEL	none	19165	31473	32540	31788	25999	11012	11965	-0.38
Grand Total		45622012	90632110	73170568	61603918	62126542	55934962	44586051	-0.02

Table 3.2.2 Trend in nominal effort (kW*days at sea) by gear categories according to Council Regulation (EC) 1098/2007, sub-area and Member State for 2004-2010. Data qualities are summarised in Section 2.8.2 and Table 2.8.2.1. An "r" in front of the gear type indicates regulated gears (see section 2.6). Gear types without an "r" are non-regulated gears. Data from Estonia were only available from 2005 . Relative change from 2004 to 2010.

REG AREA COD	VESSEL LENGTH	REG GEAR COD	SPECON	COUNTRY	Year 2004	Year 2005	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010	rel. change
28.2	O8T10M	GILL	none	LAT						958	761	1.00
		PEL_TRAWL	none	LAT		29		59	29			0.00
		r-DEM_SEINE	none	LAT	804					529	765	-0.05
		r-GILL	none	LAT	7072	14527	8827	5548	3866	11750	17188	1.43
		r-OTTER	BACOMA	LAT		1461	818	760	970	794	559	1.00
	O10T12M	GILL	none	LAT						258	581	1.00
		r-DEM_SEINE	none	LAT						3562	3202	1.00
		r-GILL	none	LAT						1653	3515	1.00
	O12T18M	OTTER	none	LAT	1760	6820	9020					-1.00
		PEL_TRAWL	none	LAT	5831	1980	660		514	220		-1.00
		r-GILL	none	LAT	2088	7308	696					-1.00
		r-OTTER	BACOMA	LAT	14080	9680	1320					-1.00
	O18T24M	OTTER	none	LAT	15222	13039	15028	14586				-1.00
		PEL_TRAWL	none	EST			220	11071	9900	23236	3080	1.00
				LAT	19109	8840	9626	6363	6010	3177	3530	-0.82
		r-OTTER	BACOMA	LAT	264	4199	12818	5746	4641			-1.00
	O24T40M	OTTER	none	LAT	27839	14232	17888	220				-1.00
		PEL_TRAWL	none	EST		3505938	2392361	768387	532336	403962	410383	1.00
				LAT	1240115	1348898	1133875	1213304	1125092	842132	976312	-0.21
		r-GILL	none	EST			166					0.00
				LAT	29011	40248	43198	46681	12263	1900	2508	-0.91
		r-OTTER	BACOMA	EST			221	221				0.00
				LAT	74145	68779	48946	53583	28437	18941	4306	-0.94
		r-PEL_TRAWL	BACOMA	LAT		6850	5500	1100		2860		0.00
A	O8T10M	BEAM	none	GER		132			8787	8644		0.00
		DEM_SEINE	none	DEN		58		259	35	35		0.00
				POL	26001	22460	12889	8243	6025	1585		-1.00
		DREDGE	none	DEN						35		0.00
				GER			936					0.00
		GILL	none	DEN	2124	80857	57016	45843	24518	9675	7151	2.37
				GER		327494	245027	251645	203787	153223	126858	1.00
				POL	191751	133858	91531	97043	62720	52485	33205	-0.83
				SWE	94	53	0	2319	1355	3272	3714	38.51
		none	none	DEN	333	34440	21229	14362	22158	23886	24796	73.46
				GER		12827	54548	34026	26556	19148		0.00
				POL				48				0.00
				SWE	688	4716	2007	6358	37	51	108	-0.84
		OTTER	none	DEN		660	195		183		51	1.00
				GER		3205	245	101	3160		288	1.00
				POL		73			253	720	17379	1.00
		PEL_TRAWL	none	DEN		46					104	1.00
		POTS	none	DEN		63515	67837	76788	71484	76362	68721	1.00
				GER		4322	11388	7760	12356	5609	14240	1.00
				POL	138532	119502	114293	118630	108013	95071	98384	-0.29
				SWE	28890	22258	22657	19969	10588	11133	7306	-0.75
		r-DEM_SEINE	none	DEN		170	73	115		166		0.00
		r-GILL	none	DEN	9707	610849	530299	427097	474283	438771	391448	39.33
				GER		384422	721512	707583	557685	437600	409809	1.00
				POL	34503	39099	49654	52584	33096	22724	22547	-0.35
				SWE	157317	166371	157569	138805	154142	113966	115503	-0.27
		r-LONGLINE	none	DEN	793	109838	112315	77825	21460	23991	25796	31.53
				GER		20206	41518	36983	35618	42921	27204	1.00
				POL	7858	11781	8556	11658	4728	3754	1340	-0.83
				SWE	2150	5620	2382	669	645	2209	3785	0.76
		r-OTTER	BACOMA	GER			29259	21400	21184	17103	15054	1.00
				POL		220	121	18745	5422	14117	9735	1.00
				SWE				115				0.00
			none	DEN	3108	44694	52847	58871	43573	37008	27477	7.84
				GER		14281						0.00
				POL	10104	4373	2526	9095	17256	17831		-1.00
		r-PEL_TRAWL	none	DEN			126	378	378			0.00
		r-TRAMMEL	none	DEN	381	132099	120313	113838	136568	144717	140287	367.21
				GER		13264	40657	96439	106223	106466	69003	1.00
				POL		38						0.00
				SWE	7618	24142	24734	23583	23997	32663	20266	1.66
		TRAMMEL	none	DEN	63	6871	3610	805	464	501	356	4.65
				GER		4752	4425	4824	13887	2916	1917	1.00
				POL	1570	1372	179	365		45	49	-0.97
				SWE		154					0	1.00

Table 3.2.2 continued

O10T12M	BEAM	none	GER						140		0.00
	DEM_SEINE	none	DEN			81					0.00
			POL	2310	1750	1820	2730	4340	1400	70	-0.97
	GILL	none	DEN	10423	16893	7493	2095	7629	10367	11496	0.10
			GER	188825	203623	168513	209673	199239	153731	111402	-0.41
			POL	62258	58740	40464	27217	19090	26061	2701	-0.96
			SWE	28691	24768	22201	21159	21426	45263	40616	0.42
	none	none	DEN	11210	16601	22426	24994	32710	33093	28746	1.56
			GER	23590	24722	35236	14827	11483	10543		-1.00
			SWE	490	17950	4901	13667	18597	16707	22419	44.75
	OTTER	none	DEN	3401	7672	5159		72		284	-0.92
			GER	69302	64653	51665	36240	40929	32997	23794	-0.66
			POL	4275	660		590	1200	2650	22792	4.33
	PEL_TRAWL	none	DEN	444	3222	2664	378	954		892	1.01
			GER	2559	13430	14632	9617	10268	180		-1.00
			POL		130						0.00
	POTS	none	DEN		71	1592	2225	95	556		0.00
			GER	5948	8080	9907	13922	3417	9320	2769	-0.53
			POL	2030	840	572			1960	1330	-0.34
			SWE	4196	10207	1607	4659	1860	507	423	-0.90
	r-DEM_SEINE	none	DEN	10533	8181	8181	7941	7452	7128	3969	-0.62
	r-GILL	none	DEN	256153	285536	244401	270340	290444	269875	219396	-0.14
			GER	520775	633562	611923	580024	523024	390522	431073	-0.17
			POL	52565	54740	45884	66415	53307	36091	26667	-0.49
			SWE	398421	435581	361933	340052	407468	332929	272974	-0.31
	r-LONGLINE	none	DEN	37482	31374	37896	38398	8242	8057	13775	-0.63
			GER	57908	73093	56182	53234	50252	62257	42596	-0.26
			POL	9670	23658	5653	6947	2522	2409	2920	-0.70
			SWE	21785	75716	24719	9539	10474	36199	27550	0.26
	r-OTTER	BACOMA	GER			249738	199134	196146	155788	148199	1.00
			POL	1535	3195	3855	14950	10129	8046	11511	6.50
			SWE	1674	132	3060	2434	1020	796		-1.00
		none	DEN	270624	272709	214856	134044	113766	150318	192058	-0.29
			GER	309792	266367	4863	9311	5970	3698	3581	-0.99
			POL	17569	12260	8970	14019	10965	13878		-1.00
			SWE					184	88		0.00
	r-PEL_TRAWL	BACOMA	GER			8706	9513	1661			0.00
		none	DEN	85	354	114			81	129	0.52
			GER		151						0.00
	r-TRAMMEL	none	DEN	62720	89551	90734	112292	126844	134152	120493	0.92
			GER	18940	25613	25882	35977	21114	26149	6033	-0.68
			SWE	17041	23139	12222	18982	16721	59580	35200	1.07
	TRAMMEL	none	DEN			47		96			0.00
			GER			294					0.00
O15M	r-GILL	none	LIT		19111	32901					0.00
	r-LONGLINE	none	LIT		12533	0					0.00
	r-OTTER	BACOMA	LIT		57602	84342					0.00
	r-PEL_TRAWL	BACOMA	LIT		16799	0					0.00
O12T18M	BEAM	none	GER							663	1.00
	DEM_SEINE	none	DEN	560	128						-1.00
			POL	4235	4598	1096	3151				-1.00
	DREDGE	none	DEN	78384	58087	75344	97071	32422	50421	67831	-0.13
			GER		14868	21420	13860	11340	7056	6048	1.00
	GILL	none	DEN	13540	13808	491	333		299	916	-0.93
			GER	60285	63315	59096	67821	63817	44504	26580	-0.56
			POL	1960	1470	1905	121	1340		70	-0.96
			SWE	5994	173	2076	1384	5882	21539	21987	2.67
	none	none	DEN	22486	20718	26342	32478	30824	34624	44749	0.99
			GER	7920	7921	4984	4687	2207	3645		-1.00
			SWE			1860					0.00
	OTTER	none	DEN	418881	410376	339523	212091	135116	130739	105496	-0.75
			GER	121383	156926	160948	136796	109254	122993	76625	-0.37
			POL	11316	48819	3289	8537	7435	19365	21849	0.93
	PEL_SEINE	none	SWE						294		0.00
	PEL_TRAWL	none	DEN	174551	246243	246095	115306	84715	69011	164289	-0.06
			GER	47487	76317	60939	60151	52197	30295	34110	-0.28
			POL			121	1840	12696	14260		0.00
	POTS	none	DEN	580	708		433		206	348	-0.40
			GER	440	1105	4620	6380	7891	12058	15180	33.50
			SWE					132			0.00

Table 3.2.2 continued

		r-BEAM	BACOMA	GER					552			0.00
			none	DEN								129	1.00
		r-DEM_SEINE	none	DEN	103052	75063	57863	31628	39595	9762	8358	-0.92
		r-GILL	none	DEN	272502	377335	203424	93853	90254	100297	58168	-0.79
				GER	141752	117996	116505	169608	163049	102597	53025	-0.63
				POL	55408	122178	55099	113100	66349	28568	35344	-0.36
				SWE	61354	59959	45398	67607	63633	70317	54436	-0.11
		r-LONGLINE	none	DEN	42601	39175	53017	11778	2992	4858	3620	-0.92
				GER	22635	29428	21648	10454	11465	17231	4486	-0.80
				POL	288	49781	17639	13948	9010		242	-0.16
				SWE	22106	31060	13655	8853	473	3489	6100	-0.72
		r-OTTER	BACOMA	GER			640978	652758	585586	507489	491575	1.00
				POL	64154	121288	34956	125278	101471	84026	67937	0.06
				SWE	114348	87236	69791	71743	50107	38391	22144	-0.81
			none	DEN	1949103	2078272	1410010	1167375	1148465	1055907	821310	-0.58
				GER	898526	750365	25581	11550	16842	11314	5716	-0.99
				POL	53084	31909	20643	33171	16388	31453		-1.00
				SWE	18105	19185	7630	11527	269		1579	-0.91
			T90	SWE							4420	1.00
		r-PEL_TRAWL	BACOMA	GER			8136	10924	1782		440	1.00
				POL				420			160	1.00
				SWE	660							-1.00
			none	DEN	5349	12941	23102	3229	2453	2663	5647	0.06
				GER	2439	6345	220					-1.00
		r-TRAMMEL	none	DEN	113844	146585	100457	83674	87676	79400	62300	-0.45
				GER	2368	1672	955		1320	2054	2714	0.15
				SWE	4498	11418	8304	2595	9617	2768	6591	0.47
		TRAMMEL	none	DEN	921	2405	419	265	432	522	205	-0.78
	O18T24M	BEAM	none	GER			1090	881	18779	7514	221	1.00
		DEM_SEINE	none	DEN			1360					0.00
		GILL	none	DEN				4620				0.00
		none	none	DEN	12232	17881	10878	17592	9512	12590		-1.00
				GER	4908	790	884	1105	176	1101		-1.00
				SWE		948						0.00
		OTTER	none	DEN	78048	40338	44962	3639	2576		1293	-0.98
				GER	104567	88978	45881	62702	42486	52348	46123	-0.56
				POL	8180	19916		1532	2681	2681	1915	-0.77
				SWE	632	404	2424			503		-1.00
		PEL_TRAWL	none	DEN	78445	58187	53647	41151	66125	60806	54479	-0.31
				GER	45961	56331	101279	74088	82556	67978	67273	0.46
				POL	2076	6615		1764	1764	6539		-1.00
				SWE	490	632	1692		25480	16660		-1.00
		r-BEAM	BACOMA	GER					3315			0.00
		r-DEM_SEINE	BACOMA	GER			23422	16948	6540	5668	2616	1.00
			none	DEN	280618	182979	186444	198747	134807	101814	79944	-0.72
				GER	7398	1912						-1.00
		r-GILL	none	DEN	9955	18969	18771	14277	18980	4200	4760	-0.52
				POL	227	13418	1960	13191	9422	3648		-1.00
				SWE	3450		4485					-1.00
		r-LONGLINE	none	DEN	10957	10024	2059	410			1489	-0.86
				POL		1636	485					0.00
				SWE					2944	1472	2208	1.00
		r-OTTER	BACOMA	GER			379497	441990	320939	274368	217691	1.00
				POL	43216	59727	30724	105678	43935	43465	11986	-0.72
				SWE	55744	60609	150557	183473	148004	91524	72066	0.29
			none	DEN	631590	627248	336479	321669	248759	156575	81746	-0.87
				GER	473465	434706	12325	2206	7981	3747	660	-1.00
				POL	31611	25661	18384	17235	8809	8043		-1.00
				SWE	1240	600	6653		7050		0	-1.00
			T90	SWE							6875	1.00
		r-PEL_TRAWL	BACOMA	GER			1137	9499			440	1.00
				POL		2734		867				0.00
				SWE		2424	2828					0.00
			none	DEN	8222	5514	3280	2639			1819	-0.78
				GER	1096	5538	220					-1.00
		r-TRAMMEL	none	DEN					660			0.00
	O24T40M	GILL	none	POL	332							-1.00
		none	none	DEN	1355	1722	2430	3679	4240	23320		-1.00
				SWE			2353	5379			2205	1.00
		OTTER	none	DEN	102448	62985	49407	46728	40618	24674	11830	-0.88
				GER	440	21932	20573	4044	7019		3160	6.18
				POL	3916	6660	1676	838				-1.00
				SWE	10320		5880	2205				-1.00

Table 3.2.2 continued

		PEL_TRAWL	none	DEN	31820	39788	19118	5426	3888	1296	20416	-0.36
				EST		1977						0.00
				GER	156744	103135	98055	139448	144828	82647	57972	-0.63
				LAT				882				0.00
				LIT						3600	442	1.00
				POL	245738	409249	317215	142023	266655	268735	103119	-0.58
				SWE	624404	439177	417131	345218	249841	203768	112265	-0.82
		POTS	none	DEN				551				0.00
		r-DEM_SEINE	BACOMA	GER				20793	31860	36659	7097	1.00
		r-GILL	none	DEN	368					3402		-1.00
				EST		40887	57436	19041	39051	41349		0.00
				GER					3924	1308		0.00
				LAT	142491	171002	161456	30116	12676	3528	11604	-0.92
				POL	14276	8452						-1.00
		r-LONGLINE	none	GER				221				0.00
				POL		2988						0.00
		r-OTTER	BACOMA	EST		4199						0.00
				GER			139146	153426	53074	55139	51368	1.00
				LAT		17632		18488			7920	1.00
				POL	76173	121107	117925	285361	145153	32363	13391	-0.82
				SWE	23606	44980	99984	141601	135757	59478	34249	0.45
			none	DEN	73162	50660	48975	140477	126283	60473	14030	-0.81
				EST							4248	1.00
				GER	72145	221112						-1.00
				POL	773					2030		-1.00
				SWE	6000	2944	830	15000	2944		3472	-0.42
			T90	SWE							11025	1.00
		r-PEL_TRAWL	BACOMA	EST		662		1269				0.00
				GER			2280	920			2860	1.00
				POL	2220	11144	1257	588				-1.00
				SWE	2222		1370		720			-1.00
			none	GER	440	5005						-1.00
	O40M	none	none	DEN	2208			3555				-1.00
		OTTER	none	DEN	9434	1655		6966				-1.00
				SWE		3000						0.00
		PEL_TRAWL	none	DEN	17295	13487	6335	15062	33936	4941		-1.00
				GER		973		14700	28665	8820	3675	1.00
				SWE	34252	24850		26572	89079	60900		-1.00
B	O8T10M	DEM_SEINE	none	POL	17193	374		3214	1534		560	-0.97
		GILL	none	DEN		9295	20106	5678	125			0.00
				GER						114		0.00
				LAT						5047	1952	1.00
				LIT						6494	730	1.00
				POL	515595	403130	336272	354684	255166	182853	27336	-0.95
				SWE	20951	25010	31259	31955	25256	19593	24402	0.16
		none	none	DEN		96	211	526	945	1598	1344	1.00
				SWE	362		3835	2221	1022	360	201	-0.44
		OTTER	none	DEN			25					0.00
				POL							1285	1.00
				SWE	6140	2875	1173	4264	2026	3411	1493	-0.76
		PEL_TRAWL	none	LAT				81				0.00
				SWE		643						0.00
		POTS	none	DEN		45		117		96		0.00
				POL	364513	353790	188735	143256	130827	94082	109662	-0.70
				SWE	106789	94739	95851	69698	51725	39886	33880	-0.68
		r-GILL	none	DEN		81386	107949	83879	88535	64922	58973	1.00
				GER		2515	318			1140		0.00
				LAT	1008	1114	764	732		3710	4825	3.79
				LIT						10065		0.00
				POL	535966	398083	334113	285531	276121	222023	289216	-0.46
				SWE	430823	319378	300366	284624	329198	284143	215920	-0.50
		r-LONGLINE	none	DEN	231	41224	66869	30423	14655	18689	18349	78.43
				POL	84284	109750	131874	87811	63068	16238	52897	-0.37
				SWE	102721	96181	87280	53564	69115	60611	35861	-0.65
		r-OTTER	BACOMA	POL	345	1605	4477	10389	22676	18892	14940	42.30
				SWE		459	1147			3441		0.00
			none	DEN		207	890		126	899	1791	1.00
				POL						54		0.00
				SWE				34				0.00
		r-PEL_TRAWL	BACOMA	POL					360			0.00
		r-TRAMMEL	none	DEN		4806	7351	12631	4806	15546	3693	1.00
				POL		70						0.00
				SWE	7496	1059	649	148	1155	154		-1.00
		TRAMMEL	none	SWE	12549	8867	11573	7930	2098	1767	1302	-0.90

Table 3.2.2 continued

O10T12M	DEM_SEINE	none	SWE							882		0.00
	DREDGE	none	SWE								1350	1.00
	GILL	none	DEN	15516	3354	1886	1896	4770	924			-1.00
			LAT							6632	4316	1.00
			LIT							6172	1443	1.00
			POL	1590	404	1539	1844	5272	2860	3290		1.07
			SWE	453	5533	6420	1995	1868	3337	2106		3.65
	none	none	DEN	449		317	94	421	2389	1293		1.88
			SWE	7800	9240	7545	7074	6721	7310	353		-0.95
	OTTER	none	DEN		61	3870						0.00
			GER						14960	8140		1.00
			POL							130		1.00
			SWE	3177	3177	1412	3000	2735	4841	1744		-0.45
	PEL_SEINE	none	SWE						8529	7500		1.00
	PEL_TRAWL	none	SWE							153		1.00
	POTS	none	POL	70	970	1540	5175	2490	2768	4705		66.21
			SWE		6341	5650	570	6673	4360	5939		1.00
	r-GILL	none	DEN	160892	117770	123185	101467	99312	107376	77158		-0.52
			GER		18859	1219			1920			0.00
			LAT						10368	9540		1.00
			LIT						22017	22536		1.00
			POL	302027	244484	202219	170129	216811	231441	242717		-0.20
			SWE	584048	443294	412293	338208	382139	382273	298597		-0.49
	r-LONGLINE	none	DEN	33893	32578	53415	39666	25325	32279	35295		0.04
			GER		746	350						0.00
			LIT						5429	3956		1.00
			POL	147424	112727	145144	88321	40469	23810	64980		-0.56
			SWE	161964	146947	121327	60534	83036	81443	72236		-0.55
	r-OTTER	BACOMA	GER			7096	5219	10108	15553	24652		1.00
			POL	11970	15495	21936	18725	20907	26356	46445		2.88
			SWE	11217	1521	10831	11722	22346	18287	11032		-0.02
		none	DEN	68392	58144	63893	46028	45105	71584	57203		-0.16
			GER		12277			440	660			0.00
			POL			54	735					0.00
			SWE		3760	5387	7355	22144	5696	1655		1.00
		T90	SWE							803		1.00
	r-PEL_TRAWL	none	DEN	340								-1.00
			GER		302							0.00
	r-TRAMMEL	none	DEN	2064	792							-1.00
			SWE	673	178	265	2084	3791	540	66		-0.90
	TRAMMEL	none	SWE	1854	1416	5465	5661	5540	3846	6830		2.68
O10T15M	r-GILL	none	LIT			13619	43760	12789				0.00
	r-LONGLINE	none	LIT			6303	8866	14960				0.00
O15M	r-GILL	none	LIT		93187	41778	46926	116160				0.00
	r-LONGLINE	none	LIT		264	53240	26466	20031				0.00
	r-OTTER	BACOMA	LIT		342503	192759	170844	382050				0.00
	r-PEL_TRAWL	BACOMA	LIT		1100	89918	85447	61407				0.00
O12T18M	DEM_SEINE	none	SWE					588	1470	441		1.00
	GILL	none	DEN	7295	2660							-1.00
			LIT						6905	2870		1.00
			POL	784	138	310	872	441	1787	847		0.08
			SWE				441	294				0.00
	none	none	DEN	118	270	284	792	304	199	843		6.14
			SWE	564		1192	2461	221	221			-1.00
	OTTER	none	DEN	77337	64828	43110	10843	11919	60456	43491		-0.44
			GER					438	15620	8580		1.00
			POL	277511	119969	40276	64670	25912	16936	21855		-0.92
			SWE	103880	137838	133666	159102	140520	89720	81226		-0.22
	PEL_SEINE	none	SWE	2499				3528	7644	6174		1.47
	PEL_TRAWL	none	DEN	91953	80470	40243	26504	39261	64686	44826		-0.51
			EST		660			3479	1264	6320		1.00
			GER	2190				219				-1.00
			LAT	110								-1.00
			POL	1161	381		3680	7048	20016	21553		17.56
			SWE	1281	9028	10107	16737	2123	147			-1.00
	POTS	none	POL	3780	6750	6885						-1.00
			SWE					264				0.00
	r-DEM_SEINE	none	DEN		1561		1080					0.00
	r-GILL	none	DEN	33329	25043	11213	1576	3245				-1.00
			GER	8290	22330	12990	11824	5048	3534			-1.00
			LAT	2750	2860							-1.00
			LIT						4225	520		1.00
			POL	1305085	785956	770906	552224	283097	140527	225553		-0.83
			SWE	410651	385072	309873	210372	186875	145276	81316		-0.80

Table 3.2.2 continued

		r-LONGLINE	none	DEN	21899	24889	12410	2860	5201	6604	7804	-0.64
				GER	10666	14040	9310	11920	17580	12580	6600	-0.38
				LIT						1235		0.00
				POL	269922	262700	275563	127561	112944	234671	245185	-0.09
				SWE	108451	102199	112598	46185	23946	28644	47048	-0.57
		r-OTTER	BACOMA	GER			40167	6701	52341	67405	99590	1.00
				POL	1231185	832809	873826	549040	416739	365300	440000	-0.64
				SWE	414487	293909	227397	139580	186340	211684	188417	-0.55
			none	DEN	359071	393386	690631	310339	278280	282119	347004	-0.03
				EST		158						0.00
				GER	5262	77639				5175		-1.00
				POL	931	121			1352			-1.00
				SWE	72054	51789	33131	20468	1050	339	586	-0.99
			T90	SWE							33029	1.00
		r-PEL_TRAWL	BACOMA	GER			3723	876		1095	6570	1.00
				POL	14570	2365	883	520		318		-1.00
				SWE	6440	5830	6015	4407	1695			-1.00
			none	DEN	28646	19829	43461	12118	1010	2612	284	-0.99
				GER	14263	1424						-1.00
		r-TRAMMEL	none	DEN			199					0.00
				POL	1330							-1.00
				SWE						850		0.00
		TRAMMEL	none	SWE	900	600	1400	9000				-1.00
	O18T24M	DREDGE	none	DEN					1326			0.00
		GILL	none	DEN	5418							-1.00
				SWE							1772	1.00
		none	none	DEN		5280				295		0.00
		OTTER	none	DEN	50310	32711	24319	7583	2385	251	994	-0.98
				GER							7072	1.00
				POL	222345	199729	120401	156818	81789	133181	91538	-0.59
				SWE	188495	219725	222417	160999	172630	215741	188475	0.00
		PEL_TRAWL	none	DEN	53932	95197	12031	8850	7530	18175	20699	-0.62
				EST			220	63306	22687	9680	22699	1.00
				GER	9096	6822		660	663	4641		-1.00
				LAT			22945	31417	27181	24710	17297	1.00
				POL	20612	29067	441	56017	58485	196410	162804	6.90
				SWE	26048	22025	14483	42872	29400	43891	50049	0.92
		r-DEM_SEINE	BACOMA	GER			956					0.00
			none	DEN	880	7069	9781	3300				-1.00
				GER	822							-1.00
		r-GILL	none	DEN	45711	19587	11696	2450	3920			-1.00
				POL	401672	151138	89754	61651	33124	1817	31079	-0.92
				SWE	50715	36225	8625		16192			-1.00
		r-LONGLINE	none	DEN	51226	28882	22238	12422		6175	15918	-0.69
				POL	19073	17140	3994	2942	3127	20093	23940	0.26
				SWE				2208	22448	30176	21344	1.00
		r-OTTER	BACOMA	GER			47593	27932	58851	102847	117611	1.00
				LAT			15179	4236	1765		3883	1.00
				POL	1217132	897613	1119623	706965	459415	284102	334758	-0.72
				SWE	629882	607927	641526	438563	467499	398265	486653	-0.23
			none	DEN	316277	327476	446503	143778	103960	102219	145429	-0.54
				GER	69231	66540			1547			-1.00
				POL	3137							-1.00
				SWE	71725	50885	32720	21417	16012	0	258	-1.00
			T90	SWE							61820	1.00
		r-PEL_TRAWL	BACOMA	GER			36919	23676	10151	18557	32045	1.00
				POL	28913	11533	14008	11933		3468	908	-0.97
				SWE	35074	40382	123604	74202	19024	11190	4320	-0.88
			none	DEN	20341	20193	52218	18985			1712	-0.92
				GER	47214	53655						-1.00
		r-TRAMMEL	none	DEN					1104			0.00
		TRAMMEL	none	SWE	690	1380						-1.00
	O24T40M	none	none	DEN			454	1012				0.00
				SWE			1780	1330				0.00
		OTTER	none	DEN	147550	115303	49348	55401	69310	78337	9244	-0.94
				GER		7208		5145	22785	45570	5145	1.00
				LAT			220					0.00
				LIT							1105	1.00
				POL	226796	71935	53221	12776	11014	22953	7155	-0.97
				SWE	145905	137420	101710	93199	88140	103456	129320	-0.11

Table 3.2.2 continued

		PEL_TRAWL	none	DEN	178025	332455	144420	271638	219175	269777	185155	0.04
				EST		14087381	6523898	4680341	2926790	1001037	1657888	1.00
				GER	428683	264947	169011	218944	209462	117492	176265	-0.59
				LAT	425878	244888	161510	264952	192270	193137	180093	-0.58
				LIT						219104	188680	1.00
				POL	3808687	2999983	2079586	2175541	1759608	2175682	2079883	-0.45
				SWE	3164631	2828543	2731531	2567516	2063792	1536565	958135	-0.70
		r-DEM_SEINE	BACOMA	GER			10800	9000	7782	19715	26908	1.00
		r-GILL	none	EST		287824	253368	128268	40036	31107		0.00
				LAT	1467478	697206	596232	568049	539579	387778	346650	-0.76
				LIT						70960	81114	1.00
				POL	614008	184420	50596	9266				-1.00
				SWE	9384							-1.00
		r-LONGLINE	none	GER	1105	221	221					-1.00
				POL	18834	6716	1544		1840	16596	4895	-0.74
		r-OTTER	BACOMA	EST		94738	5729	9503				0.00
				GER			68240	40325	67911	29204	34545	1.00
				LAT	322019	242532	335746	181857	228095	198632	214543	-0.33
				LIT						286887	332848	1.00
				POL	2444156	1837998	1974501	1042546	589833	315971	409781	-0.83
				SWE	585260	554654	597933	456232	463759	330325	284108	-0.51
			none	DEN	30955	12727	53951	68345	213162	153876	141411	3.57
				EST							96642	1.00
				GER	137506	124521						-1.00
				POL	772							-1.00
				SWE	157385	152070	105750	56162	26110	23572	58331	-0.63
			T90	SWE						9536	42729	1.00
		r-PEL_TRAWL	BACOMA	EST		214426	355398	702922	703021	219177	114680	1.00
				GER			100850	45827	6540	16483	22688	1.00
				LAT	114489	4122	29965	122803	10521	14473		-1.00
				POL	738057	155121	541349	363069	22230	31445	2516	-1.00
				SWE	85174	74921	284225	99825	16140	29303	11880	-0.86
			none	DEN						1418		0.00
				GER	120630	88307						-1.00
				LIT						20974	1764	1.00
	O40M	OTTER	none	DEN		29282	43035	56313	13013	28608	42600	1.00
				GER							8085	1.00
				SWE	4632							-1.00
		PEL_TRAWL	none	DEN	73646	139603	218491	408632	499534	634646	605307	7.22
				GER		1946	103138	107310	83055	80115	91140	1.00
				LIT						162400	114800	1.00
				SWE	2918512	2787383	2577885	2579134	2573242	2353887	1979590	-0.32
		r-PEL_TRAWL	BACOMA	SWE	17951							-1.00
C	O8T10M	DEM_SEINE	none	SWE	530	1882	3646	3000				-1.00
		GILL	none	SWE	251451	222356	208475	200308	158000	184364	187081	-0.26
		none	none	SWE							500	1.00
		OTTER	none	SWE	14009	8807	9427	9845	9133	8905	10182	-0.27
		PEL_TRAWL	none	SWE				331				0.00
		POTS	none	SWE	252046	223650	194499	149942	134963	129574	140466	-0.44
		r-GILL	none	SWE	62632	69482	61294	37057	36482	28057	39349	-0.37
		r-LONGLINE	none	SWE							0	1.00
		r-TRAMMEL	none	SWE			265					0.00
		TRAMMEL	none	SWE			1210					0.00
	O10T12M	GILL	none	SWE	132441	128861	96103	80849	81402	57576	51809	-0.61
		none	none	SWE	225							-1.00
		OTTER	none	SWE	118633	125111	130646	117492	102311	95199	98215	-0.17
		PEL_TRAWL	none	EST			2828					0.00
				SWE	176	88	1056				522	1.97
		POTS	none	SWE	15631	3581	3529	8721	2912	2363	3941	-0.75
		r-GILL	none	SWE	22921	16451	10785	12446	16290	28241	27952	0.22
		r-LONGLINE	none	SWE					80			0.00
		r-OTTER	none	EST		1414	5454	2828	4242			0.00
		TRAMMEL	none	SWE	618	3656	3918	2938	3482	1415	1306	1.11
	O12T18M	GILL	none	SWE	20295	22269	37554	49236	30928	19127	24211	0.19
		none	none	SWE						3378		0.00
		OTTER	none	EST		220	220	220				0.00
				SWE	47044	55116	88404	76485	82787	90541	83786	0.78
		PEL_TRAWL	none	EST		1383379	659221	799068	1906836	528357	803530	1.00
				SWE				4752				0.00
		POTS	none	SWE					220			0.00
		r-GILL	none	SWE		500	23760	25110	12960	6600	6225	1.00
		r-OTTER	BACOMA	SWE					2160			0.00
			none	EST		2214						0.00

Table 3.2.2 continued

	O18T24M	GILL	none	SWE		9867				4320	5400	1.00
		OTTER	none	SWE	42390	49895	47682	51156	47952	41185	18360	-0.57
		PEL_TRAWL	none	EST			12643	147884	171363	153214	242316	1.00
				GER		3411						0.00
				SWE		793	1620	1960			1350	1.00
		r-GILL	none	SWE		6831						0.00
		r-OTTER	none	SWE		404						0.00
	O24T40M	GILL	none	SWE	8280							-1.00
		OTTER	none	DEN		1879	14065		5549			0.00
				GER		1540			3675	4410		0.00
				POL				258				0.00
				SWE	34096						32520	-0.05
		PEL_TRAWL	none	DEN	31063	6428	18960	17359	38590	25471	36337	0.17
				EST		28642835	24500092	20376763	26200909	26717902	17091473	1.00
				GER	72616	60838	16361	46267	38183	37454	30851	-0.58
				LIT						1200		0.00
				POL						22084	14108	1.00
				SWE	417434	491278	252077	640005	326729	228582	173639	-0.58
		r-GILL	none	EST		166	166					0.00
				SWE	4968							-1.00
	O40M	OTTER	none	DEN				4564				0.00
				GER							6615	1.00
		PEL_TRAWL	none	DEN	6153			35512	118234	157365	113252	17.41
				GER		12649	10703	35280	30870	22050	7350	1.00
				LIT						18200	14000	1.00
				SWE	464699	733503	493176	593366	670344	581872	565630	0.22
Grand total					44184672	85579282	69469380	59476289	60402484	54619030	43159361	-0.02
Grand total 28.2					1437340	5052828	3701188	2127629	1724058	1315932	1426690	-0.01

Table 3.2.2 continued (information on fully documented fishery)

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	Year 2010 (effort)	2010 L (cod)	2010 D (cod)
A	PEL_TRAWL	FDFBAL	DEN	440		
	r-OTTER	FDFBAL	DEN	41001	264	0
	r-PEL_TRAWL	FDFBAL	DEN	660	8	0
B	DEM_SEINE	FDFBAL	DEN	3740		
	none	FDFBAL	DEN	220		
	OTTER	FDFBAL	DEN	440	0	0
	PEL_TRAWL	FDFBAL	DEN	12760	2	0
	r-OTTER	FDFBAL	DEN	83407	725	0
	r-PEL_TRAWL	FDFBAL	DEN	1540	19	0
Grand Total				144208	1018	0

Table 3.2.3. Trend in nominal effort (Kw *days at sea) by gear categories and sub-area 2004-2010. Data qualities are summarised in Section 2.8.2 and Table 2.8.2.1. An "r" in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007 (see section 2.6). Gear types without an "r" are non-regulated gears. **Data from Sweden and Poland were only available from 2003 and 2004 respectively. Relative change from 2004 to 2010.**

REG AREA COD	REG GEAR COD	SPECON	2004	2005	2006	2007	2008	2009	2010	rel. change
28.2	GILL	none						1216	1342	1.00
	OTTER	none	44821	34091	41936	14806				-1.00
	PEL_TRAWL	none	1265055	4865685	3536742	1999184	1673881	1272727	1393305	0.10
	r-DEM_SEINE	none	804					4091	3967	3.93
	r-GILL	none	38171	62083	52887	52229	16129	15303	23211	-0.39
	r-OTTER	BACOMA	88489	84119	64123	60310	34048	19735	4865	-0.95
	r-PEL_TRAWL	BACOMA		6850	5500	1100		2860		1.00
A	BEAM	none		132	1090	881	27566	16298	884	1.00
	DEM_SEINE	none	33106	28994	17246	14383	10400	3020	70	-1.00
	DREDGE	none	78384	72955	97700	110931	43762	57512	73879	-0.06
	GILL	none	566277	925052	695813	731273	610803	520419	386696	-0.32
	none	none	87420	161236	190078	176757	158500	178708	123023	0.41
	OTTER	none	946543	938912	731827	523009	392982	389670	332879	-0.65
	PEL_SEINE	none						294		1.00
	PEL_TRAWL	none	1462266	1493789	1338923	993626	1153647	900436	619036	-0.58
	POTS	none	180616	230608	234473	251317	215836	212782	208701	0.16
	r-BEAM	BACOMA					3867			1.00
		none							129	1.00
	r-DEM_SEINE	BACOMA			23422	37741	38400	42327	9713	1.00
		none	401601	268305	252561	238431	181854	118870	92271	-0.77
	r-GILL	none	2131224	3559467	3420610	3103693	2960787	2401692	2106754	-0.01
	r-LONGLINE	none	236233	527911	397724	280917	160825	208847	163111	-0.31
	r-OTTER	BACOMA	380450	577927	2033933	2436574	1817927	1382093	1174826	2.09
		none	4820001	4857346	2171572	1945550	1775504	1552363	1155877	-0.76
		T90							22320	1.00
	r-PEL_TRAWL	BACOMA	5102	33763	25714	34000	4163		3900	-0.24
		none	17631	35848	27062	6246	2831	2744	7595	-0.57
	r-TRAMMEL	none	227410	467521	424258	487380	530740	587949	462887	1.04
	TRAMMEL	none	2554	15554	8974	6259	14879	3984	2527	-0.01
B	DEM_SEINE	none	17193	374		3214	2122	2352	1001	-0.94
	DREDGE	none					1326		1350	1.00
	GILL	none	567602	449524	397792	399365	293192	242718	71064	-0.87
	none	none	9293	14886	15618	15510	9634	12372	4034	-0.57
	OTTER	none	1454078	1142061	838203	790113	644616	834041	658677	-0.55
	PEL_SEINE	none	2499				3528	16173	13674	4.47
	PEL_TRAWL	none	11204445	23931422	14809940	13524132	10725004	9127462	8563336	-0.24
	POTS	none	475152	462635	298661	218816	191979	141192	154186	-0.68
	r-DEM_SEINE	BACOMA			11756	9000	7782	19715	26908	1.00
		none	1702	8630	9781	4380				-1.00
	r-GILL	none	6363837	4317731	3653076	2900936	2632181	2126622	1985714	-0.69
	r-LONGLINE	none	1031693	997204	1103680	601749	517745	595273	656308	-0.36
	r-OTTER	BACOMA	6867653	5723763	6185706	3820379	3450635	2673151	3043806	-0.56
		none	1292698	1331700	1432910	674661	709288	646193	850310	-0.34
		T90						9536	138381	1.00
	r-PEL_TRAWL	BACOMA	1040668	509800	1586857	1535507	851089	345509	195607	-0.81
		none	231434	183710	95679	31103	1010	25004	3760	-0.98
	r-TRAMMEL	none	11563	6905	8464	14863	10856	17090	3759	-0.67
	TRAMMEL	none	15993	12263	18438	22591	7638	5613	8132	-0.49
C	DEM_SEINE	none	530	1882	3646	3000				-1.00
	GILL	none	412467	383353	342132	330393	270330	265387	268501	-0.35
	none	none	225					3378	500	1.22
	OTTER	none	256172	242568	290444	260020	251407	240240	249678	-0.03
	PEL_TRAWL	none	992141	31335202	25968737	22698547	29502058	28493751	19094358	18.25
	POTS	none	267677	227231	198028	158663	138095	131937	144407	-0.46
	r-GILL	none	90521	93430	96005	74613	65732	62898	73526	-0.19
	r-LONGLINE	none					80			1.00
	r-OTTER	BACOMA					2160			1.00
		none		4032	5454	2828	4242			1.00
	r-TRAMMEL	none			265					1.00
	TRAMMEL	none	618	3656	5128	2938	3482	1415	1306	1.11
Grand total			44184672	85579282	69469380	59476289	60402484	54619030	43159361	-0.02
Grand total 28.2			1437340	5052828	3701188	2127629	1724058	1315932	1426690	-0.01

Table 3.2.4. Relative annual effort dynamics in Baltic cod r-GILL and r- OTTER fisheries in 2004-2010.

REG GEAR COD	REG AREA COD	SPECON	2005/2004	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
r-GILL	28.2	none	0.63	-0.15	-0.01	-0.69	-0.05	0.52
r-GILL	A	none	0.67	-0.04	-0.09	-0.05	-0.19	-0.12
r-GILL	B	none	-0.32	-0.15	-0.21	-0.09	-0.19	-0.07
r-GILL	C	none	0.03	0.03	-0.22	-0.12	-0.04	0.17
r-OTTER	28.2	BACOMA	-0.05	-0.24	-0.06	-0.44	-0.42	-0.75
r-OTTER	A	BACOMA	0.52	2.52	0.20	-0.25	-0.24	-0.15
r-OTTER	A	none	0.01	-0.55	-0.10	-0.09	-0.13	-0.26
r-OTTER	A	T90	1.00	1.00	1.00	1.00	1.00	1.00
r-OTTER	B	BACOMA	-0.17	0.08	-0.38	-0.10	-0.23	0.14
r-OTTER	B	none	0.03	0.08	-0.53	0.05	-0.09	0.32
r-OTTER	B	T90	1.00	1.00	1.00	1.00	1.00	13.51
r-OTTER	C	BACOMA	1.00	1.00	1.00	1.00	-1.00	1.00
r-OTTER	C	none	1.00	0.35	-0.48	0.50	-1.00	1.00
All regulated gears	28.2		0.15	-0.20	-0.04	-0.55	-0.30	-0.20
All regulated gears	A		0.23	-0.15	-0.02	-0.12	-0.19	-0.16
All regulated gears	B		-0.22	-0.01	-0.34	-0.08	-0.20	0.10
All regulated gears	C		0.08	0.04	-0.24	-0.07	-0.13	0.17

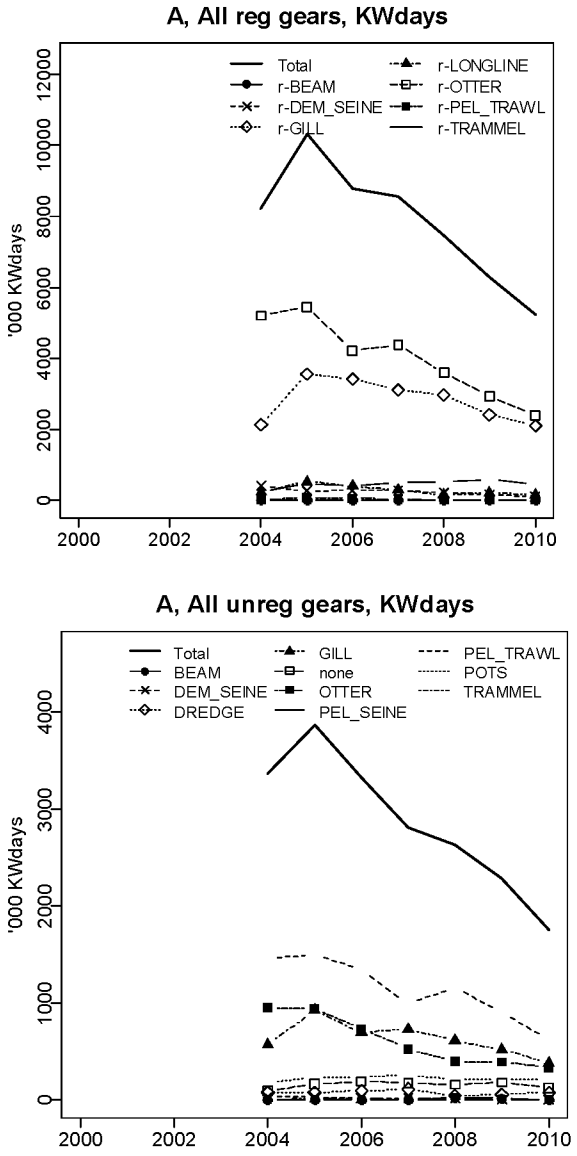

Figure 3.2.1. Area A Baltic: Trend in nominal effort by gear types 2004-2010 (Kw *days at sea). Left: Regulated gears. Right Unregulated gears. **Note that data from Poland, Latvia and Lithuania are only available from 2004 onwards. Therefore, effort trends are shown from 2004 to 2010. No data from Finland.**

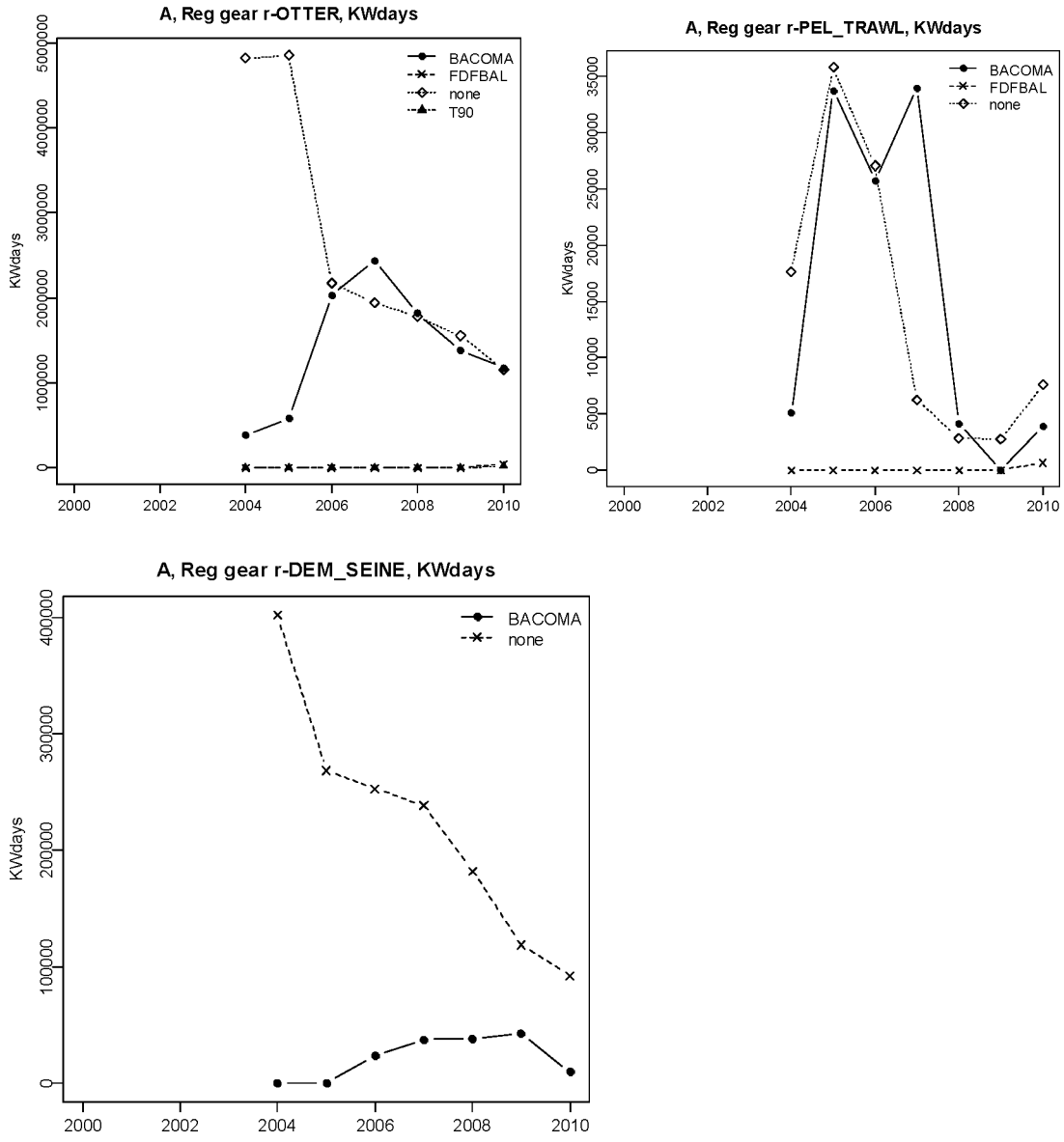

Figure 3.2.2. Area A Baltic: Trend in nominal effort by special conditions, 2004-2010 (kw *days at sea). **Note that data from Poland, Latvia and Lithuania are only available from 2004 onwards. Therefore, effort trends are shown from 2004 to 2010. No data from Finland.**

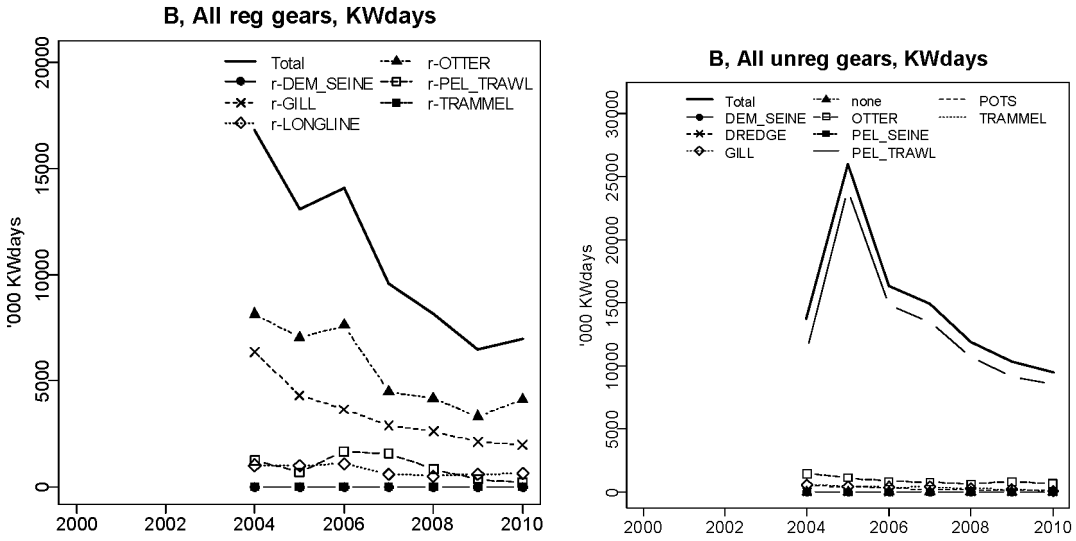

Figure 3.2.3. Area B Baltic: Trend in nominal effort by gear types 2004-2010 (kW *days at sea). Left: Regulated gears. Right: Unregulated gears. **Note that data from Poland, Latvia and Lithuania are only available from 2004 onwards. Therefore, effort trends are shown from 2004 to 2010. Additionally, Estonian dataset of 2005-2010 was included in database. No data from Finland.**

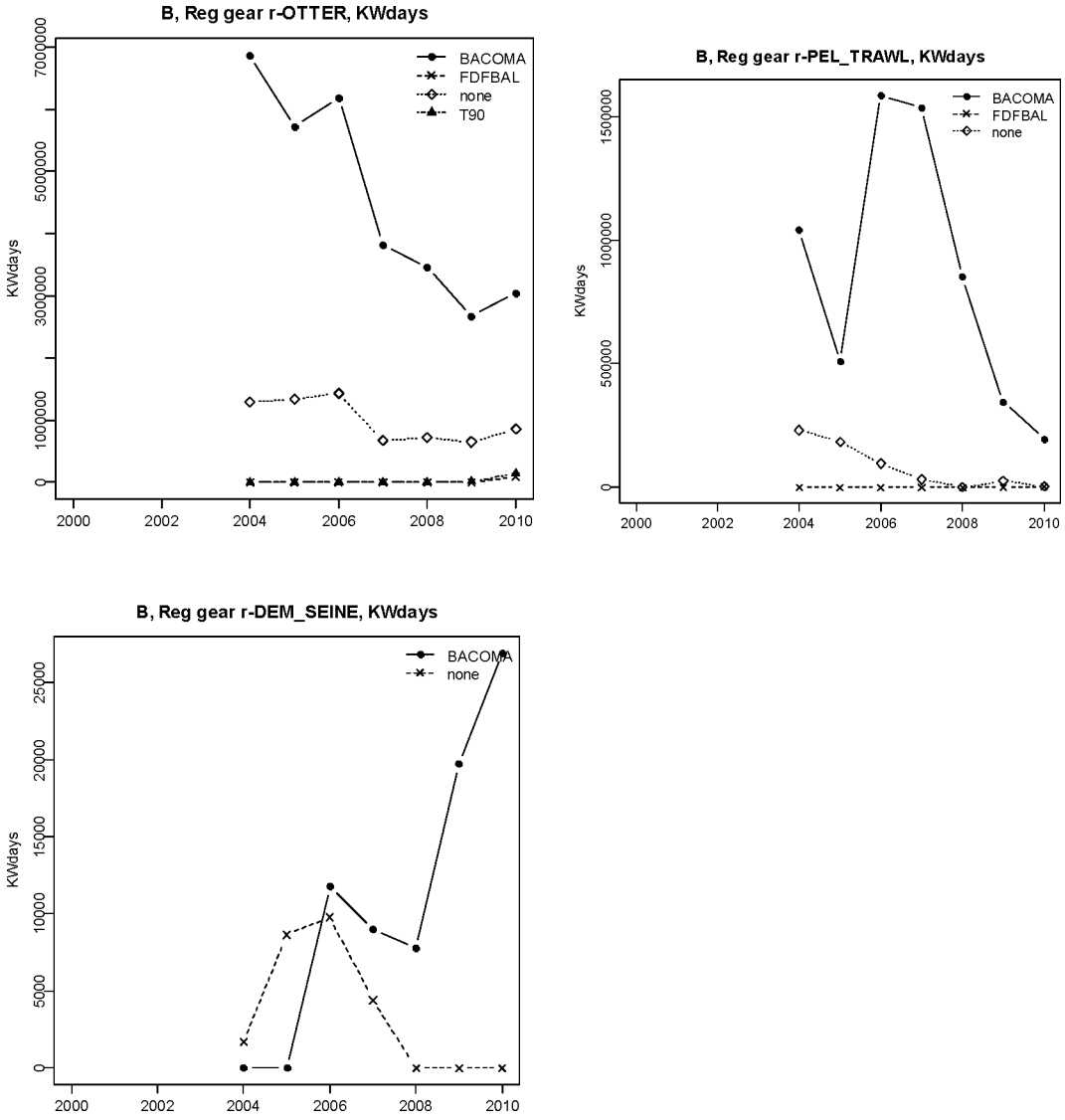

Figure 3.2.4. Area B Baltic: Trend in nominal effort by special conditions, 2004-2010 kW *days at sea). **Note that data from Poland, Latvia and Lithuania are only available from 2004 onwards. Therefore, effort trends are shown from 2004 to 2010. No data from Finland**

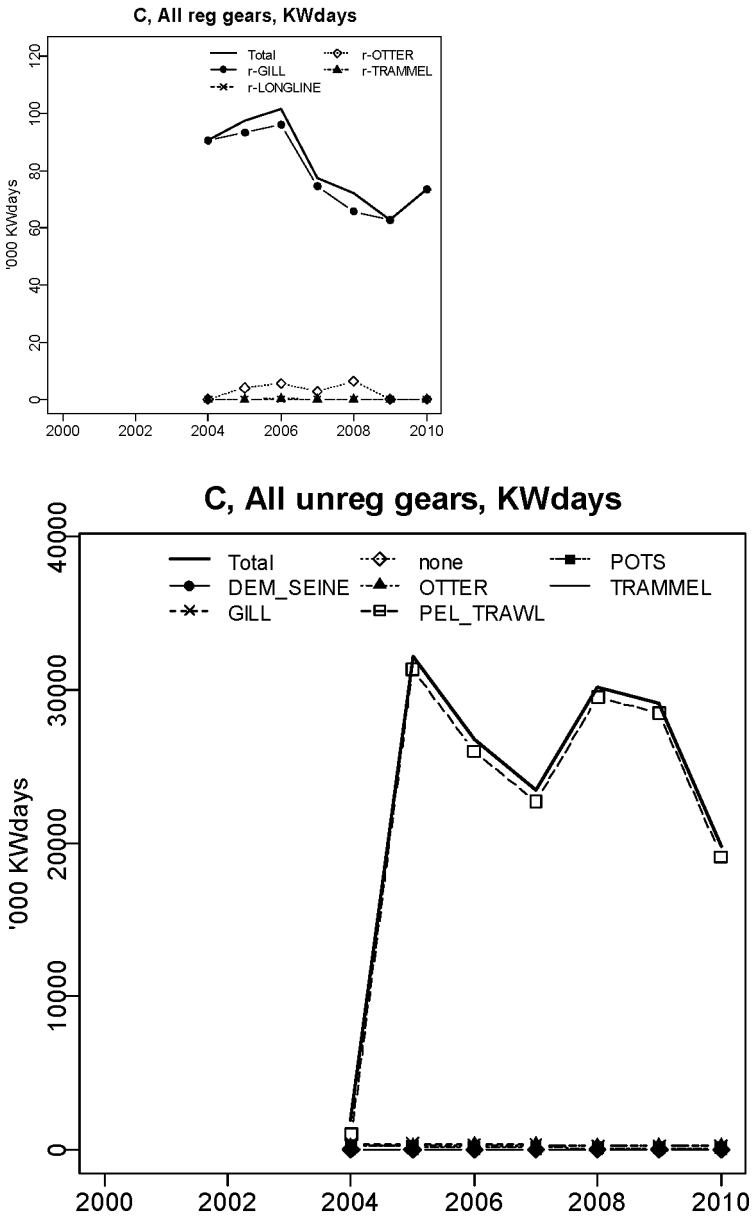

Figure 3.2.5. Area C Baltic: Trend in nominal effort by gear types 2004-2010 (kW *days at sea). Left: Regulated gears. Right: Unregulated gears. **Note that data from Poland, Latvia and Lithuania are only available from 2004 onwards. Therefore, effort trends are shown from 2004 to 2010. Additionally, Estonian data from 2005-2010 (including substantial pelagic effort) was included. No data from Finland.**

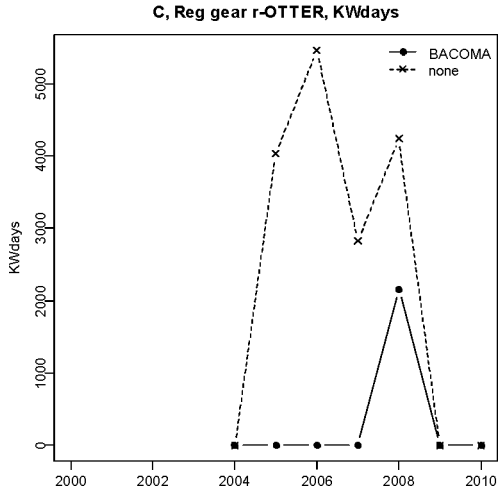

Figure 3.2.6. Area C Baltic: Trend in nominal effort by special conditions, 2004-2010 (kw *days at sea). **Note that data from Poland, Latvia and Lithuania are only available from 2004 onwards. Therefore, effort trends are shown from 2004 to 2010. No data from Finland**

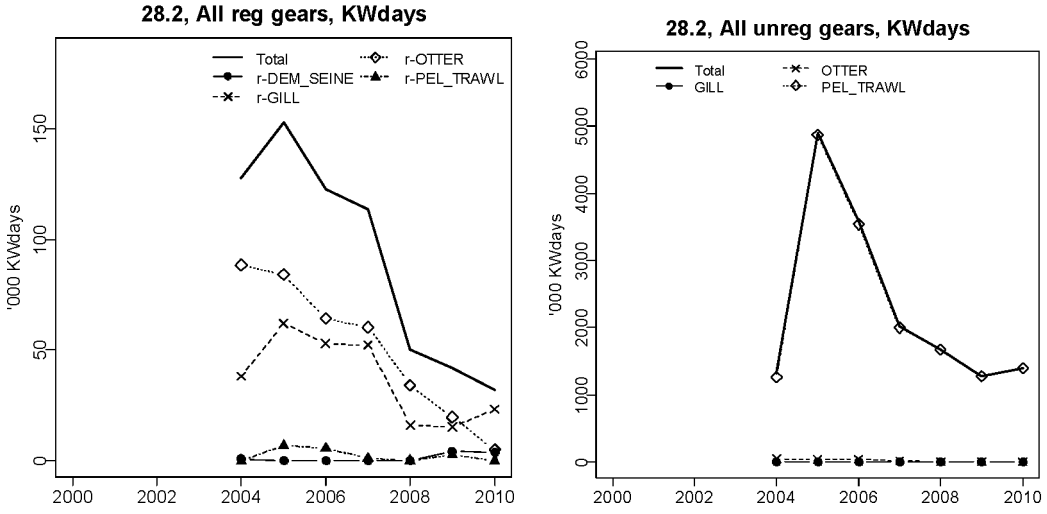

Figure 3.2.7. Area 28.2. Baltic: Trend in nominal effort by gear types 2004-2010 (kW *days at sea). Left: Regulated gears. Right: Unregulated gears. **Note that data from Poland, Latvia and Lithuania are only available from 2004 onwards. Therefore, effort trends are shown from 2004 to 2010. No data from Finland**

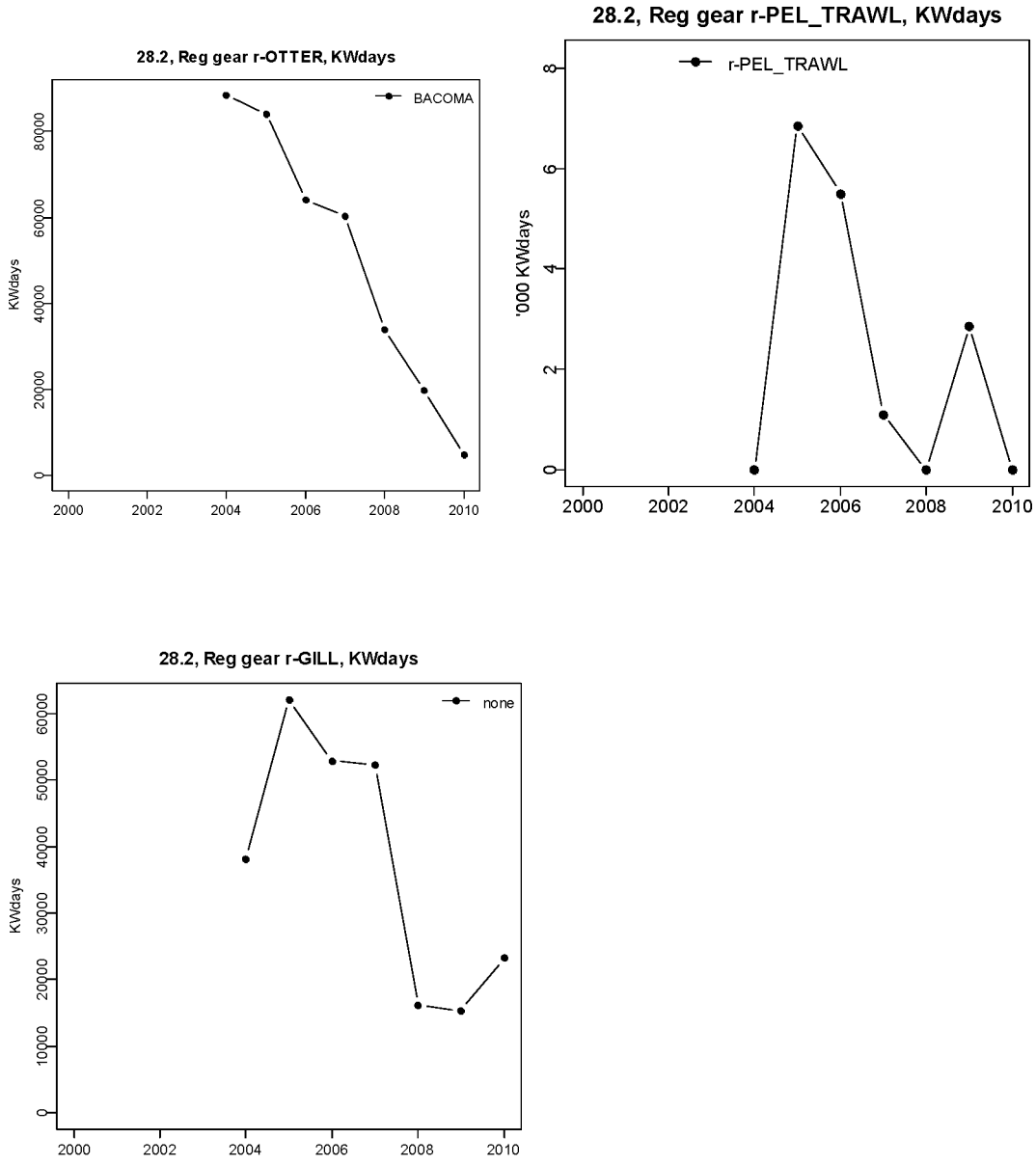

Figure 3.2.8. Area 28.2. Baltic: Trend in nominal effort by special conditions, 2004-2010 kW *days at sea). **Note that data from Poland, Latvia and Lithuania are only available from 2004 onwards. Therefore, effort trends are shown from 2004 to 2010. No data from Finland.**

3.3 Trends in Baltic cod catch estimates in weight and numbers at age by gear category, sub-area and member state 2004 - 2010

The following tables list the landings and discards for cod by gear category, sub-area and member state (Table 3.3.1) as well as aggregated over member states (Table 3.3.2). Discard rates per year, gear category, sub-area and country can be found in Table 3.3.3.1 and aggregated over member states in Table 3.3.3.2. A detailed list of catches and discard estimates by age can be found in Table 3.3.4. Figures on landings and discards for the most important gear categories catching cod were also provided (Figure 3.3.1).

The overall problem highlighted in this section is the poor quality of discard data as already outlined in section 2.9. In addition, data from Poland are only available from 2004 and for Estonia, from 2005 onwards. Therefore, for the analyses of catch and discard trends, year 2003 had to be excluded.

The overall landings of Baltic cod in 2010 were 27% lower compared to 2004 (ICES, 2011). Discards fluctuate around low values without trend over years. In addition, the poor quality of the discard estimates and provision makes this observation unreliable.

Most cod landings stem from areas A and B. Area C only plays a very limited role according to available data (Landings 2010 A+B = 63347 tonnes; Landings 2010 C = 53 tonnes (<0.1%)).

Discard rates for cod are highest for area B followed by area A (Table 3.3.3.1). For area C hardly any discard data are available. This probably reflects the distribution of the cod stock.. Discard rates were in general higher for otter trawls, demersal seines and pelagic trawls (up to 62 % in sub-area A otter trawls in 2010) generally <16% from 2005 onwards in most cases compared to gillnets (<10%). Discard rates between member states are of comparable magnitude. Only in area B were discard rates for r-Otter significantly higher for Sweden, Germany and Poland compared to the other countries in some years. Unfortunately a comparison between BACOMA trawls and non-BACOMA trawls was not possible due to the inability to distinguish between vessels equipped with BACOMA trawls and vessels not equipped with BACOMA-trawls especially for the years before 2005.

A ranking of gear categories according to cod catches in the different sub-areas can be found in section 3.5.

Table 3.3.1: Landings (t) and discards (t) for cod in 2004-2010 by gear category, area and member state. Data qualities are summarised in Section 2.8.4 and Table 2.8.4.1. An "r" in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007 (see section 2.6). Gear types without an "r" are non-regulated gears. **Data from Estonia are only available from 2005 onwards**

REG_AREA	REG_GEAR	SPECON	COUNTRY	2004 L	2004 D	2005 L	2005 D	2006 L	2006 D	2007 L	2007 D	2008 L	2008 D	2009 L	2009 D	2010 L	2010 D
28.2	GILL	none	LAT													0	0
28.2	OTTER	none	LAT			0	0	0	0								
28.2	PEL_TRAWL	none	LAT	17	0	9	0	9	0	13	0	5	0			1	0
28.2	r-GILL	none	LAT	74	0	151	3	90	2	102	7	39	1	39	0	37	0
28.2	r-OTTER	BACOMA	EST							1	0						
28.2	r-OTTER	BACOMA	LAT	173	0	195	0	168	0	93	0	57	0	121	0	12	0
28.2	r-PEL_TRAWL	BACOMA	LAT														
A	BEAM	none	GER													2	0
A	DEM_SEINE	none	DEN	0	0	0	0	6	0	0	0						
A	DEM_SEINE	none	POL	0	0					0	0						
A	DREDGE	none	DEN														
A	GILL	none	DEN	56	0	258	4	122	0	119	0	20	0	12	0	7	0
A	GILL	none	GER	0	0	22	0	21	0	17	0	4	0	1	0	3	0
A	GILL	none	POL	9	0	1	0	1	0	5	0	3	0	1	0	0	0
A	GILL	none	SWE	0	0	1	0	0	0	1	0	0	0	1	0	1	0
A	none	none	DEN	2782	0	426	0	808	0	99	0	52	0	24	0	40	0
A	none	none	GER	3	0	18	0	34	0	9	0	3	0	3	0		
A	none	none	SWE	1	0	23	0	7	0	35	0	15	0	6	0	17	0
A	OTTER	none	DEN	72	0	121	0	122	0	49	0	22	0	23	0	8	14
A	OTTER	none	GER	21	0	77	0	60	0	39	0	57	0	33	0	22	34
A	OTTER	none	POL	3	0	3	0	1	0	1	0	0	0				
A	OTTER	none	SWE	1	0	0	0	1	0	0	0			0	0		
A	PEL_TRAWL	none	DEN	35	0	94	0	88	0	46	0	27	0	19	0	19	0
A	PEL_TRAWL	none	GER	26	0	65	0	83	0	50	0	47	0	17	0	17	0
A	PEL_TRAWL	none	LAT							11	0			0	0		
A	PEL_TRAWL	none	POL	10	0	35	0	40	0	9	0	16	0	0	0	1	0
A	PEL_TRAWL	none	SWE	60	1	71	0	53	0	31	0	27	0	23	0	28	0
A	POTS	none	DEN			268	0	83	0	174	0	64	0	58	0	83	0
A	POTS	none	GER	2	0	0	0	2	0	0	0	1	0	4	0	14	0
A	POTS	none	POL	0	0			1	0								
A	POTS	none	SWE	3	0	3	0	4	0	6	0	1	0	0	0	2	0
A	r-BEAM	BACOMA	GER									9	0				
A	r-BEAM	none	GER														
A	r-DEM_SEINE	BACOMA	GER					51	0	143	0	250	0	194	0	51	0
A	r-DEM_SEINE	none	DEN	1318	81	1045	67	1339	64	1425	136	1222	2	581	9	466	7
A	r-DEM_SEINE	none	GER	6	0	37	4										
A	r-GILL	none	DEN	1444	15	2998	125	2310	0	2098	0	1865	1	1398	74	1378	33
A	r-GILL	none	EST			60	3	102	0	52	0	132	0	194	8		
A	r-GILL	none	GER	624	13	1140	45	1744	0	1699	0	1534	0	874	87	1174	35
A	r-GILL	none	LAT	247	2	406	19	580	0	90	0	30	0	23	1	71	3
A	r-GILL	none	POL	316	7	449	18	436	0	884	0	641	0	266	36	168	3
A	r-GILL	none	SWE	1217	18	1151	46	1063	0	1153	0	1245	2	946	39	817	17
A	r-LONGLINE	none	DEN	309	1	718	36	478	0	413	0	131	0	123	1	158	0
A	r-LONGLINE	none	GER	24	0	59	3	32	0	20	0	20	0	13	0	32	0
A	r-LONGLINE	none	LIT			8	0										
A	r-LONGLINE	none	POL	33	0	258	12	128	0	265	0	78	0	10	0	13	0
A	r-LONGLINE	none	SWE	113	3	204	7	100	0	54	0	58	0	157	0	107	0
A	r-OTTER	BACOMA	EST			1	0									0	0
A	r-OTTER	BACOMA	GER					4944	332	4941	319	3155	231	2623	300	2556	567
A	r-OTTER	BACOMA	LAT			57	0	1	0	173	13					87	11
A	r-OTTER	BACOMA	POL	129	13	309	0	177	13	1182	78	611	37	238	20	127	11
A	r-OTTER	BACOMA	SWE	755	40	634	2	1217	61	1525	132	1256	51	879	91	429	45
A	r-OTTER	none	DEN	7748	7	7273	17	6441	5	6921	9	5502	11	5353	10	4158	11
A	r-OTTER	none	GER	3685	320	4670	504	22	0	9	0	18	0	4	0	1	0
A	r-OTTER	none	LIT			129	0	42	0								
A	r-OTTER	none	SWE													19	2
A	r-OTTER	T90	SWE													45	4
A	r-PEL_TRAWL	BACOMA	EST			1	0			10	0						
A	r-PEL_TRAWL	BACOMA	GER					76	0	187	0	5	0			13	0
A	r-PEL_TRAWL	BACOMA	POL			27	0	2	0	3	0						
A	r-PEL_TRAWL	BACOMA	SWE	8	0	5	0	7	0			2	0				
A	r-PEL_TRAWL	none	DEN	23	0	59	0	98	0	19	0	7	0	23	0	27	0
A	r-PEL_TRAWL	none	GER	11	0	35	0	0	0								
A	r-PEL_TRAWL	none	LIT			10	0										
A	r-TRAMMEL	none	DEN	240	3	461	14	479	0	456	0	454	0	286	13	346	0
A	r-TRAMMEL	none	GER	2	0	16	0	29	0	88	0	96	0	61	8	42	0
A	r-TRAMMEL	none	SWE	24	0	65	5	80	0	36	0	47	0	47	1	89	1
A	TRAMMEL	none	DEN	4	0	18	0	4	0	5	0	6	0	0	0	1	0
A	TRAMMEL	none	GER			3	0	2	0	3	0	1	0	0	0		
A	TRAMMEL	none	POL	0	0												
A	TRAMMEL	none	SWE														

Table 3.3.1 continued

B	DREDGE	none	DEN									6	0				
B	GILL	none	DEN	47	0	35	0	54	0	42	0	7	0	1	0	0	0
B	GILL	none	POL	6	0	2	0	2	0	1	0	1	0	2	0	1	0
B	GILL	none	SWE			0	0	0	0	0	0	0	0	0	0	0	0
B	none	none	DEN	1057	0	41	0	82	0	9	0	3	0			2	0
B	none	none	SWE	5	0	3	0	11	0	8	0	7	0	4	0	0	0
B	OTTER	none	DEN	60	0	66	0	33	0	10	0	3	0	6	1	1	0
B	OTTER	none	GER									0	0	6	0	0	0
B	OTTER	none	LAT														
B	OTTER	none	LIT													0	0
B	OTTER	none	POL	38	0	32	0	8	0	3	0	2	0			0	0
B	OTTER	none	SWE	24	0	22	0	15	0	16	0	16	0	22	2	10	0
B	PEL_TRAWL	none	DEN	29	0	80	0	21	0	24	0	6	0	13	2	3	3
B	PEL_TRAWL	none	EST			47	0	0	0	40	0	19	0	17	2		
B	PEL_TRAWL	none	GER	5	0					0	0					0	0
B	PEL_TRAWL	none	LAT	57	0	69	0	56	0	207	0	149	0	177	25	159	107
B	PEL_TRAWL	none	LIT											52	6	30	43
B	PEL_TRAWL	none	POL	321	0	352	0	262	0	133	0	143	0	58	8	58	54
B	PEL_TRAWL	none	SWE	102	0	96	0	36	0	100	0	79	0	96	12	22	0
B	POTS	none	DEN			0	0			0	0						
B	POTS	none	POL	0	0	0	0	1	0								
B	POTS	none	SWE	0	0	0	0	0	0	0	0	1	0	12	1	8	0
B	r-DEM_SEINE	BACOMA	GER					67	0	58	0	94	0	339	0	233	0
B	r-DEM_SEINE	none	DEN	0	0	89	0	82	0	45	0						
B	r-DEM_SEINE	none	GER	1	0												
B	r-GILL	none	DEN	595	13	605	15	719	25	729	51	871	32	789	29	465	43
B	r-GILL	none	EST			301	9	296	12	229	21	168	6	161	4		
B	r-GILL	none	GER	19	1	172	5	16	0	2	0	8	0	19	0		
B	r-GILL	none	LAT	3380	146	2106	70	1821	69	1657	195	1964	73	2333	73	2336	235
B	r-GILL	none	LIT			3	0			1	0			451	20	488	141
B	r-GILL	none	POL	5217	158	3496	109	3582	139	2048	132	2788	70	3448	149	3323	259
B	r-GILL	none	SWE	2894	40	1864	57	1629	55	1517	93	1969	75	1835	98	1081	32
B	r-LONGLINE	none	DEN	238	2	378	5	319	0	192	0	113	0	89	6	139	16
B	r-LONGLINE	none	GER	0	0	1	0	0	0			0	0			0	0
B	r-LONGLINE	none	LIT											28	1	22	2
B	r-LONGLINE	none	POL	2122	26	1804	25	2553	0	1371	0	913	3	514	37	1372	181
B	r-LONGLINE	none	SWE	1197	16	951	19	896	0	537	0	724	1	621	48	412	62
B	r-OTTER	BACOMA	EST			73	5	28	5	63	12					526	59
B	r-OTTER	BACOMA	GER					1199	220	596	110	1960	123	1991	260	2456	245
B	r-OTTER	BACOMA	LAT	623	26	931	23	1603	106	1043	39	1658	156	1776	130	2434	314
B	r-OTTER	BACOMA	LIT											2039	201	1980	244
B	r-OTTER	BACOMA	POL	5366	280	5291	358	6282	704	3399	506	4466	272	5478	491	6548	645
B	r-OTTER	BACOMA	SWE	7131	426	4502	649	5357	1334	6108	1459	5792	665	6830	990	7030	656
B	r-OTTER	none	DEN	3427	65	2964	73	6443	374	4539	118	5842	129	6683	130	8762	203
B	r-OTTER	none	GER	1039	36	1570	44					26	1	34	0		
B	r-OTTER	none	LIT			23	0	112	9	669	11						
B	r-OTTER	none	SWE											156	21	274	27
B	r-OTTER	T90	SWE											77	12	887	75
B	r-PEL_TRAWL	BACOMA	EST			103	0	277	42	446	41	611	63	445	38	266	8
B	r-PEL_TRAWL	BACOMA	GER					728	124	870	94	260	12	842	78	1228	34
B	r-PEL_TRAWL	BACOMA	LAT	348	9	6	0	140	28	751	86	32	3	122	10		
B	r-PEL_TRAWL	BACOMA	POL	1188	20	235	0	1111	22	1378	21	34	2	261	8	28	1
B	r-PEL_TRAWL	BACOMA	SWE	494	26	321	0	1596	393	1226	227	162	32	394	46	114	9
B	r-PEL_TRAWL	none	DEN	394	3	174	6	543	0	356	0	14	0	91	0	37	0
B	r-PEL_TRAWL	none	GER	1530	22	578	22										
B	r-PEL_TRAWL	none	LIT			122	4	791	0	1732	0			218	0	13	0
B	r-TRAMMEL	none	DEN	7	0	2	0	4	0	36	0	26	0	68	0	10	0
B	r-TRAMMEL	none	SWE	2	0	1	0	0	0	0	0	1	0	0	0		
B	TRAMMEL	none	DEN					0	0	1	0						
B	TRAMMEL	none	SWE	1	0	0	0	0	0			0	0				
C	GILL	none	SWE			1	0	0	0							0	0
C	OTTER	none	SWE	0	0	0	0	4	0								
C	PEL_TRAWL	none	DEN														
C	r-GILL	none	SWE	12	0	10	0	10	0	13	0	15	0	34	2	41	1
C	r-LONGLINE	none	SWE									0	0				
C	r-OTTER	BACOMA	SWE									1	0				
Grand total				60340	1839	53314	2429	62310	4136	56760	3903	49688	2053	53150	3639	55438	4497
Grand total 28.2				264	0	355	3	267	2	209	7	101	1	160	0	50	0

Table 3.3.2: Landings (t) and discards (t) for cod in 2003-2010 by gear category and area. Data qualities are summarised in Section 2.8.4 and Table 2.8.4.1 and 2.9. An "r" in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007 (see section 2.6). Gear types without an "r" are non-regulated gears. **Data from Estonia are only available from 2005 onwards**

REG_AREA	REG_GEAR	SPECON	2003 L	2003 D	2004 L	2004 D	2005 L	2005 D	2006 L	2006 D	2007 L	2007 D	2008 L	2008 D	2009 L	2009 D	2010 L	2010 D
28.2	GILL	none															0	0
28.2	OTTER	none	0	0			0	0	0	0								
28.2	PEL_TRAWL	none	11	0	17	0	9	0	9	0	13	0	5	0			1	0
28.2	r-GILL	none	242	5	74	0	151	3	90	2	102	7	39	1	39	0	37	0
28.2	r-OTTER	BACOMA	108	0	173	0	195	0	168	0	94	0	57	0	121	0	12	0
28.2	r-PEL_TRAWL	BACOMA	11	0														
A	BEAM	none															2	0
A	DEM_SEINE	none			0	0	0	0	6	0	0	0						
A	DREDGE	none	8	0														
A	GILL	none	112	0	65	0	282	4	145	0	142	0	28	0	13	0	10	0
A	none	none	2960	0	2786	0	467	0	850	0	143	0	71	0	32	0	57	0
A	OTTER	none	153	0	98	0	201	0	183	0	90	0	79	0	56	0	30	48
A	PEL_TRAWL	none	122	0	132	1	264	0	264	0	146	0	116	0	59	0	65	0
A	POTS	none	4	0	5	0	272	0	90	0	180	0	66	0	62	0	99	0
A	r-BEAM	BACOMA											9	0				
A		none	1	0														
A	r-DEM_SEINE	BACOMA							51	0	143	0	250	0	194	0	51	0
A		none	1351	80	1324	81	1082	71	1339	64	1425	136	1222	2	581	9	466	7
A	r-GILL	none	3999	59	3847	55	6204	256	6235	0	5976	1	5446	3	3700	245	3607	91
A	r-LONGLINE	none	396	4	479	4	1246	58	738	0	753	0	286	0	304	1	310	0
A	r-OTTER	BACOMA	645	0	884	53	1003	2	6339	406	7821	542	5022	319	3740	412	3199	634
A		none	11721	1550	11433	327	12072	520	6506	5	6930	9	5520	11	5357	10	4178	12
A		T90															45	4
A	r-PEL_TRAWL	BACOMA			8	0	32	0	85	0	200	0	7	0			13	0
A		none	93	1	34	0	105	0	98	0	19	0	7	0	23	0	27	0
A	r-TRAMMEL	none	301	4	266	3	543	19	588	0	581	0	597	0	394	21	477	1
A	TRAMMEL	none	4	0	4	0	20	0	6	0	8	0	7	0	0	0	1	0
B	DREDGE	none											6	0				
B	GILL	none	21	0	53	0	37	0	56	0	43	0	8	0	3	0	1	0
B	none	none	926	0	1062	0	45	0	92	0	17	0	10	0	4	0	2	0
B	OTTER	none	62	0	122	0	120	0	56	0	28	0	21	0	34	3	11	0
B	PEL_TRAWL	none	88	0	513	0	645	0	375	0	504	0	396	0	413	55	271	207
B	POTS	none	0	0	0	0	0	0	2	0	0	0	1	0	12	1	8	0
B	r-DEM_SEINE	BACOMA							67	0	58	0	94	0	339	0	233	0
B		none	7	0	1	0	89	0	82	0	45	0						
B	r-GILL	none	7984	193	12106	358	8548	265	8063	300	6182	492	7768	257	9036	373	7693	711
B	r-LONGLINE	none	1243	32	3557	44	3135	50	3768	0	2100	0	1750	4	1252	92	1945	261
B	r-OTTER	BACOMA	4246	550	13120	732	10796	1035	14469	2369	11209	2126	13877	1216	18114	2071	20973	2164
B		none	8687	674	4466	101	4557	117	6555	383	5208	129	5867	130	6873	151	9036	231
B		T90													77	12	887	75
B	r-PEL_TRAWL	BACOMA	31	0	2030	55	664	0	3852	609	4670	469	1098	112	2065	180	1636	52
B		none	154	0	1924	25	875	32	1334	0	2088	0	14	0	309	0	50	0
B	r-TRAMMEL	none	12	0	9	0	3	0	4	0	37	0	27	0	68	0	10	0
B	TRAMMEL	none	0	0	1	0	0	0	0	0	1	0	0	0				
C	GILL	none					1	0	0	0							0	0
C	OTTER	none			0	0	0	0	4	0								
C	PEL_TRAWL	none	0	0														
C	r-GILL	none	14	0	12	0	10	0	10	0	13	0	15	0	34	2	41	1
C	r-LONGLINE	none											0	0				
C	r-OTTER	BACOMA											1	0				

Table 3.3.3.: Discard rates for cod 2004-2010 by gear category, area and country. Data qualities are summarised in Section 2.8.4 and Table 2.8.4.1 and 2.9. An "r" in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007 (see section 2.6). Gear types without an "r" are non-regulated gears. Data from Estonia are only available from 2005 onwards

REG_AREA	REG_GEAR	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010
28.2	GILL	none	LAT	0	0	0	0	0	0	0
28.2	OTTER	none	LAT	0	0	0	0	0	0	0
28.2	PEL_TRAWL	none	LAT	0	0	0	0	0	0	0
28.2	r-GILL	none	LAT	0	0.02	0.02	0.06	0.02	0	0
28.2	r-OTTER	BACOMA	EST	0	0	0	0	0	0	0
28.2	r-OTTER	BACOMA	LAT	0	0	0	0	0	0	0
28.2	r-PEL_TRAWL	BACOMA	LAT	0	0	0	0	0	0	0
A	BEAM	none	GER	0	0	0	0	0	0	0
A	DEM_SEINE	none	DEN	0	0	0	0	0	0	0
A	DEM_SEINE	none	POL	0	0	0	0	0	0	0
A	DREDGE	none	DEN	0	0	0	0	0	0	0
A	GILL	none	DEN	0	0.02	0	0	0	0	0
A	GILL	none	GER	0	0	0	0	0	0	0
A	GILL	none	POL	0	0	0	0	0	0	0
A	GILL	none	SWE	0	0	0	0	0	0	0
A	none	none	DEN	0	0	0	0	0	0	0
A	none	none	GER	0	0	0	0	0	0	0
A	none	none	SWE	0	0	0	0	0	0	0
A	OTTER	none	DEN	0	0	0	0	0	0	0.64
A	OTTER	none	GER	0	0	0	0	0	0	0.61
A	OTTER	none	POL	0	0	0	0	0	0	0
A	OTTER	none	SWE	0	0	0	0	0	0	0
A	PEL_TRAWL	none	DEN	0	0	0	0	0	0	0
A	PEL_TRAWL	none	GER	0	0	0	0	0	0	0
A	PEL_TRAWL	none	LAT	0	0	0	0	0	0	0
A	PEL_TRAWL	none	POL	0	0	0	0	0	0	0
A	PEL_TRAWL	none	SWE	0.02	0	0	0	0	0	0
A	POTS	none	DEN	0	0	0	0	0	0	0
A	POTS	none	GER	0	0	0	0	0	0	0
A	POTS	none	POL	0	0	0	0	0	0	0
A	POTS	none	SWE	0	0	0	0	0	0	0
A	r-BEAM	BACOMA	GER	0	0	0	0	0	0	0
A	r-BEAM	none	GER	0	0	0	0	0	0	0
A	r-DEM_SEINE	BACOMA	GER	0	0	0	0	0	0	0
A	r-DEM_SEINE	none	DEN	0.06	0.06	0.05	0.09	0	0.02	0.01
A	r-DEM_SEINE	none	GER	0	0.1	0	0	0	0	0
A	r-GILL	none	DEN	0.01	0.04	0	0	0	0.05	0.02
A	r-GILL	none	EST	0	0.05	0	0	0	0.04	0
A	r-GILL	none	GER	0.02	0.04	0	0	0	0.09	0.03
A	r-GILL	none	LAT	0.01	0.04	0	0	0	0.04	0.04
A	r-GILL	none	POL	0.02	0.04	0	0	0	0.12	0.02
A	r-GILL	none	SWE	0.01	0.04	0	0	0	0.04	0.02
A	r-LONGLINE	none	DEN	0	0.05	0	0	0	0.01	0
A	r-LONGLINE	none	GER	0	0.05	0	0	0	0	0
A	r-LONGLINE	none	LIT	0	0	0	0	0	0	0
A	r-LONGLINE	none	POL	0	0.04	0	0	0	0	0
A	r-LONGLINE	none	SWE	0.03	0.03	0	0	0	0	0
A	r-OTTER	BACOMA	EST	0	0	0	0	0	0	0
A	r-OTTER	BACOMA	GER	0	0	0.06	0.06	0.07	0.1	0.18
A	r-OTTER	BACOMA	LAT	0	0	0	0.07	0	0	0.11
A	r-OTTER	BACOMA	POL	0.09	0	0.07	0.06	0.06	0.08	0.08
A	r-OTTER	BACOMA	SWE	0.05	0	0.05	0.08	0.04	0.09	0.09
A	r-OTTER	none	DEN	0	0	0	0	0	0	0
A	r-OTTER	none	GER	0.08	0.1	0	0	0	0	0
A	r-OTTER	none	LIT	0	0	0	0	0	0	0
A	r-OTTER	none	SWE	0	0	0	0	0	0	0.1
A	r-OTTER	T90	SWE	0	0	0	0	0	0	0.08
A	r-PEL_TRAWL	BACOMA	EST	0	0	0	0	0	0	0
A	r-PEL_TRAWL	BACOMA	GER	0	0	0	0	0	0	0
A	r-PEL_TRAWL	BACOMA	POL	0	0	0	0	0	0	0
A	r-PEL_TRAWL	BACOMA	SWE	0	0	0	0	0	0	0
A	r-PEL_TRAWL	none	DEN	0	0	0	0	0	0	0
A	r-PEL_TRAWL	none	GER	0	0	0	0	0	0	0
A	r-PEL_TRAWL	none	LIT	0	0	0	0	0	0	0
A	r-TRAMMEL	none	DEN	0.01	0.03	0	0	0	0.04	0
A	r-TRAMMEL	none	GER	0	0	0	0	0	0.12	0
A	r-TRAMMEL	none	SWE	0	0.07	0	0	0	0.02	0.01
A	TRAMMEL	none	DEN	0	0	0	0	0	0	0
A	TRAMMEL	none	GER	0	0	0	0	0	0	0

Table 3.3.3. continued

A	TRAMMEL	none	POL	0	0	0	0	0	0	0
A	TRAMMEL	none	SWE	0	0	0	0	0	0	0
B	DREDGE	none	DEN	0	0	0	0	0	0	0
B	GILL	none	DEN	0	0	0	0	0	0	0
B	GILL	none	POL	0	0	0	0	0	0	0
B	GILL	none	SWE	0	0	0	0	0	0	0
B	none	none	DEN	0	0	0	0	0	0	0
B	none	none	SWE	0	0	0	0	0	0	0
B	OTTER	none	DEN	0	0	0	0	0	0.14	0
B	OTTER	none	GER	0	0	0	0	0	0	0
B	OTTER	none	LAT	0	0	0	0	0	0	0
B	OTTER	none	LIT	0	0	0	0	0	0	0
B	OTTER	none	POL	0	0	0	0	0	0	0
B	OTTER	none	SWE	0	0	0	0	0	0.08	0
B	PEL_TRAWL	none	DEN	0	0	0	0	0	0.13	0.5
B	PEL_TRAWL	none	EST	0	0	0	0	0	0.11	0
B	PEL_TRAWL	none	GER	0	0	0	0	0	0	0
B	PEL_TRAWL	none	LAT	0	0	0	0	0	0.12	0.4
B	PEL_TRAWL	none	LIT	0	0	0	0	0	0.1	0.59
B	PEL_TRAWL	none	POL	0	0	0	0	0	0.12	0.48
B	PEL_TRAWL	none	SWE	0	0	0	0	0	0.11	0
B	POTS	none	DEN	0	0	0	0	0	0	0
B	POTS	none	POL	0	0	0	0	0	0	0
B	POTS	none	SWE	0	0	0	0	0	0.08	0
B	r-DEM_SEINE	BACOMA	GER	0	0	0	0	0	0	0
B	r-DEM_SEINE	none	DEN	0	0	0	0	0	0	0
B	r-DEM_SEINE	none	GER	0	0	0	0	0	0	0
B	r-GILL	none	DEN	0.02	0.02	0.03	0.07	0.04	0.04	0.08
B	r-GILL	none	EST	0	0.03	0.04	0.08	0.03	0.02	0
B	r-GILL	none	GER	0.05	0.03	0	0	0	0	0
B	r-GILL	none	LAT	0.04	0.03	0.04	0.11	0.04	0.03	0.09
B	r-GILL	none	LIT	0	0	0	0	0	0.04	0.22
B	r-GILL	none	POL	0.03	0.03	0.04	0.06	0.02	0.04	0.07
B	r-GILL	none	SWE	0.01	0.03	0.03	0.06	0.04	0.05	0.03
B	r-LONGLINE	none	DEN	0.01	0.01	0	0	0	0.06	0.1
B	r-LONGLINE	none	GER	0	0	0	0	0	0	0
B	r-LONGLINE	none	LIT	0	0	0	0	0	0.03	0.08
B	r-LONGLINE	none	POL	0.01	0.01	0	0	0	0.07	0.12
B	r-LONGLINE	none	SWE	0.01	0.02	0	0	0	0.07	0.13
B	r-OTTER	BACOMA	EST	0	0.06	0.15	0.16	0	0	0.1
B	r-OTTER	BACOMA	GER	0	0	0.16	0.16	0.06	0.12	0.09
B	r-OTTER	BACOMA	LAT	0.04	0.02	0.06	0.04	0.09	0.07	0.11
B	r-OTTER	BACOMA	LIT	0	0	0	0	0	0.09	0.11
B	r-OTTER	BACOMA	POL	0.05	0.06	0.1	0.13	0.06	0.08	0.09
B	r-OTTER	BACOMA	SWE	0.06	0.13	0.2	0.19	0.1	0.13	0.09
B	r-OTTER	none	DEN	0.02	0.02	0.05	0.03	0.02	0.02	0.02
B	r-OTTER	none	GER	0.03	0.03	0	0	0.04	0	0
B	r-OTTER	none	LIT	0	0	0.07	0.02	0	0	0
B	r-OTTER	none	SWE	0	0	0	0	0	0.12	0.09
B	r-OTTER	T90	SWE	0	0	0	0	0	0.13	0.08
B	r-PEL_TRAWL	BACOMA	EST	0	0	0.13	0.08	0.09	0.08	0.03
B	r-PEL_TRAWL	BACOMA	GER	0	0	0.15	0.1	0.04	0.08	0.03
B	r-PEL_TRAWL	BACOMA	LAT	0.03	0	0.17	0.1	0.09	0.08	0
B	r-PEL_TRAWL	BACOMA	POL	0.02	0	0.02	0.02	0.06	0.03	0.03
B	r-PEL_TRAWL	BACOMA	SWE	0.05	0	0.2	0.16	0.16	0.1	0.07
B	r-PEL_TRAWL	none	DEN	0.01	0.03	0	0	0	0	0
B	r-PEL_TRAWL	none	GER	0.01	0.04	0	0	0	0	0
B	r-PEL_TRAWL	none	LIT	0	0.03	0	0	0	0	0
B	r-TRAMMEL	none	DEN	0	0	0	0	0	0	0
B	r-TRAMMEL	none	SWE	0	0	0	0	0	0	0
B	TRAMMEL	none	DEN	0	0	0	0	0	0	0
B	TRAMMEL	none	SWE	0	0	0	0	0	0	0
C	GILL	none	SWE	0	0	0	0	0	0	0
C	OTTER	none	SWE	0	0	0	0	0	0	0
C	PEL_TRAWL	none	DEN	0	0	0	0	0	0	0
C	r-GILL	none	SWE	0	0	0	0	0	0.06	0.02
C	r-LONGLINE	none	SWE	0	0	0	0	0	0	0
C	r-OTTER	BACOMA	SWE	0	0	0	0	0	0	0

Table 3.3.4: Discard rates for cod 2004-2010 by gear category and area. Data qualities are summarised in Section 2.8.4 and Table 2.8.4.1 and 2.9. An "r" in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007 (see section 2.6). Gear types without an "r" are non-regulated gears. Data from Estonia are only available from 2005 onwards.

REG_AREA	REG_GEAR	SPECON	2004	2005	2006	2007	2008	2009	2010
28.2	GILL	none	0	0	0	0	0	0	0
28.2	OTTER	none	0	0	0	0	0	0	0
28.2	PEL_TRAWL	none	0	0	0	0	0	0	0
28.2	r-GILL	none	0	0.02	0.02	0.06	0.02	0	0
28.2	r-OTTER	BACOMA	0	0	0	0	0	0	0
28.2	r-PEL_TRAWL	BACOMA	0	0	0	0	0	0	0
A	BEAM	none	0	0	0	0	0	0	0
A	DEM_SEINE	none	0	0	0	0	0	0	0
A	DREDGE	none	0	0	0	0	0	0	0
A	GILL	none	0	0.01	0	0	0	0	0
A	none	none	0	0	0	0	0	0	0
A	OTTER	none	0	0	0	0	0	0	0.62
A	PEL_TRAWL	none	0.01	0	0	0	0	0	0
A	POTS	none	0	0	0	0	0	0	0
A	r-BEAM	BACOMA	0	0	0	0	0	0	0
A	r-BEAM	none	0	0	0	0	0	0	0
A	r-DEM_SEINE	BACOMA	0	0	0	0	0	0	0
A	r-DEM_SEINE	none	0.06	0.06	0.05	0.09	0	0.02	0.01
A	r-GILL	none	0.01	0.04	0	0	0	0.06	0.02
A	r-LONGLINE	none	0.01	0.04	0	0	0	0	0
A	r-OTTER	BACOMA	0.06	0	0.06	0.06	0.06	0.1	0.17
A	r-OTTER	none	0.03	0.04	0	0	0	0	0
A	r-OTTER	T90	0	0	0	0	0	0	0.08
A	r-PEL_TRAWL	BACOMA	0	0	0	0	0	0	0
A	r-PEL_TRAWL	none	0	0	0	0	0	0	0
A	r-TRAMMEL	none	0.01	0.03	0	0	0	0.05	0
A	TRAMMEL	none	0	0	0	0	0	0	0
B	DREDGE	none	0	0	0	0	0	0	0
B	GILL	none	0	0	0	0	0	0	0
B	none	none	0	0	0	0	0	0	0
B	OTTER	none	0	0	0	0	0	0.08	0
B	PEL_TRAWL	none	0	0	0	0	0	0.12	0.43
B	POTS	none	0	0	0	0	0	0.08	0
B	r-DEM_SEINE	BACOMA	0	0	0	0	0	0	0
B	r-DEM_SEINE	none	0	0	0	0	0	0	0
B	r-GILL	none	0.03	0.03	0.04	0.07	0.03	0.04	0.08
B	r-LONGLINE	none	0.01	0.02	0	0	0	0.07	0.12
B	r-OTTER	BACOMA	0.05	0.09	0.14	0.16	0.08	0.1	0.09
B	r-OTTER	none	0.02	0.03	0.06	0.02	0.02	0.02	0.02
B	r-OTTER	T90	0	0	0	0	0	0.13	0.08
B	r-PEL_TRAWL	BACOMA	0.03	0	0.14	0.09	0.09	0.08	0.03
B	r-PEL_TRAWL	none	0.01	0.04	0	0	0	0	0
B	r-TRAMMEL	none	0	0	0	0	0	0	0
B	TRAMMEL	none	0	0	0	0	0	0	0
C	GILL	none	0	0	0	0	0	0	0
C	OTTER	none	0	0	0	0	0	0	0
C	PEL_TRAWL	none	0	0	0	0	0	0	0
C	r-GILL	none	0	0	0	0	0	0.06	0.02
C	r-LONGLINE	none	0	0	0	0	0	0	0
C	r-OTTER	BACOMA	0	0	0	0	0	0	0

Table 3.3.5: Cod landings (L) and discards (D) at ages 1-9 (‘000) by gear category and area 2004-2009. An “r” in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007 (see section 2.6). Gear types without an “r” are non-regulated gears. Data on age distribution were available for sub-areas A and B only. Data from Estonia are only available from 2005 onwards.

ANNEX	REG_AREA	SPECIES	REG_GEAR	SPECON	AGE	2004_L	2004_D	2005_L	2005_D	2006_L	2006_D	2007_L	2007_D	2008_L	2008_D	2009_L	2009_D	2010_L	2010_D
Bal	28.2	COD	r-GILL	none	1								0.627		0.022				
Bal	28.2	COD	r-GILL	none	2						0.023	0.098	5.874		0.707				
Bal	28.2	COD	r-GILL	none	3					0.781	0.189	1.414	5.19	0.748	1.239				
Bal	28.2	COD	r-GILL	none	4					5.202	0.333	31.266	0.354	7.171	0.197				
Bal	28.2	COD	r-GILL	none	5					7.822	0.018	37.427	0.175	7.758	0.044				
Bal	28.2	COD	r-GILL	none	6					1.698		10.479	0.052	2.856	0.007				
Bal	28.2	COD	r-GILL	none	7					0.349		1.479		0.669	0.007				
Bal	28.2	COD	r-GILL	none	8					0.008		0.264		0.081					
Bal	28.2	COD	r-GILL	none	9														
Bal	28.2	COD	r-OTTER	BACOMA	1														
Bal	28.2	COD	r-OTTER	BACOMA	2														
Bal	28.2	COD	r-OTTER	BACOMA	3	0.487		0.539		0.6									
Bal	28.2	COD	r-OTTER	BACOMA	4	2.682		62.763		29.352									
Bal	28.2	COD	r-OTTER	BACOMA	5	8.146		67.57		18.838									
Bal	28.2	COD	r-OTTER	BACOMA	6	11.798		30.981		10.076									
Bal	28.2	COD	r-OTTER	BACOMA	7	4.496		2.67		0.438									
Bal	28.2	COD	r-OTTER	BACOMA	8	1.143													
Bal	28.2	COD	r-OTTER	BACOMA	9	0.521													
Bal	A	COD	DEM_SEINE	none	1			0.001		0.502		0.006							
Bal	A	COD	DEM_SEINE	none	2			0.321		1.996		0.083							
Bal	A	COD	DEM_SEINE	none	3			0.092		2.729		0.075							
Bal	A	COD	DEM_SEINE	none	4			0.08		0.283		0.065							
Bal	A	COD	DEM_SEINE	none	5			0.011		0.056		0.017							
Bal	A	COD	DEM_SEINE	none	6			0.003		0.022		0.002							
Bal	A	COD	DEM_SEINE	none	7			0.002		0.011		0							
Bal	A	COD	DEM_SEINE	none	8			0		0.006		0							
Bal	A	COD	DEM_SEINE	none	9					0.002		0							
Bal	A	COD	GILL	none	1	3.235		14.237		3.694		1.075		0.109		0.408	0.006	0.009	
Bal	A	COD	GILL	none	2	9.006		155.71		24.657		31.024		1.519		0.435	0.018	1.893	
Bal	A	COD	GILL	none	3	25.531		41.284		83.758		31.861		4.547		1.235	0.007	3.629	
Bal	A	COD	GILL	none	4	4.687		39.042		6.179		40.364		3.909		2.669	0	2.339	
Bal	A	COD	GILL	none	5	1.412		7.959		2.947		9.282		3.113		1.695	0	1.076	
Bal	A	COD	GILL	none	6	0.294		2.52		0.393		1.703		1.529		0.615		0.287	
Bal	A	COD	GILL	none	7	0.071		0.817		0.078		0.236		0.457		0.304		0.083	
Bal	A	COD	GILL	none	8	0		0.257		0.028		0.07		0.141		0.03		0.02	
Bal	A	COD	GILL	none	9			0.006		0.012		0.036		0.005		0		0.002	
Bal	A	COD	none	none	1	206.939		10.597		12.749		0.786		0.315		3.515		0.53	
Bal	A	COD	none	none	2	675.406		191.321		113.703		28.535		6.354		4.802		17.71	
Bal	A	COD	none	none	3	1318.615		58.008		448.044		27.127		15.599		9.484		19.634	
Bal	A	COD	none	none	4	201.666		76.153		36.832		33.827		11.298		11.49		12.049	
Bal	A	COD	none	none	5	38.844		13.724		25.389		8.876		7.677		4.292		4.605	
Bal	A	COD	none	none	6	9.34		6.131		4.109		2.105		3.473		1.591		1.127	
Bal	A	COD	none	none	7	2.266		1.173		0.915		0.345		0.994		0.416		0.272	
Bal	A	COD	none	none	8	0.193		0.747		0.576		0.154		0.374		0.094		0.111	
Bal	A	COD	none	none	9			0.009		0.106		0.073		0.007		0.006		0.016	
Bal	A	COD	OTTER	none	1	9.926		6.976		0.282		0.081		0.018		1016.518	0.002	0.035	
Bal	A	COD	OTTER	none	2	26.246		124.449		15.23		14.231		1.426		0.454	0.009	1.812	
Bal	A	COD	OTTER	none	3	46.838		31.696		130.528		16.203		6.229		3.991	0.004	4.324	
Bal	A	COD	OTTER	none	4	6.138		30.894		6.067		24.439		4.733		7.597	0	1.883	
Bal	A	COD	OTTER	none	5	1.349		6.444		5.143		4.641		2.581		5.241		0.944	
Bal	A	COD	OTTER	none	6	0.304		1.78		0.738		1.346		1.101		1.506		0.332	
Bal	A	COD	OTTER	none	7	0.081		0.36		0.147		0.15		0.215		0.729		0.126	
Bal	A	COD	OTTER	none	8	0		0.18		0.136		0.098		0.155		0.14		0.034	
Bal	A	COD	OTTER	none	9			0.01		0.011		0.051		0.004				0.005	
Bal	A	COD	PEL_TRAWL	none	1	2.161	0.202	19.112		1.392		0.076		163.15		139.355		4.452	
Bal	A	COD	PEL_TRAWL	none	2	23.48	0.302	138.325		27.535		12.461		47.191		49.965		30.991	
Bal	A	COD	PEL_TRAWL	none	3	49.636	0.101	29.096		165.965		19.093		14.311		9.755		7.89	
Bal	A	COD	PEL_TRAWL	none	4	7.257		31.939		9.785		40.29		13.294		5.527		14.508	
Bal	A	COD	PEL_TRAWL	none	5	1.551		7.344		6.775		8.1		10.057		3.642		6.667	
Bal	A	COD	PEL_TRAWL	none	6	0.363		2.954		1.257		2.285		5.229		1.266		1.303	
Bal	A	COD	PEL_TRAWL	none	7	0.085		0.728		0.363		0.303		1.378		0.877		0.492	
Bal	A	COD	PEL_TRAWL	none	8	0.001		0.387		0.288		0.177		0.572		0.176		0.198	
Bal	A	COD	PEL_TRAWL	none	9			0.015		0.053		0.093		0				0.001	
Bal	A	COD	POTS	none	1			39.316		3.598		3.127		1.82		16.071		0.024	
Bal	A	COD	POTS	none	2			220.18		23.549		64.205		12.501		16.821		29.183	
Bal	A	COD	POTS	none	3			27.567		51.43		55.742		21.538		14.342		44.323	
Bal	A	COD	POTS	none	4			15.44		3.273		49.22		13.523		16.407		28.489	
Bal	A	COD	POTS	none	5			3.496		0.904		11.013		6.672		6.361		10.555	
Bal	A	COD	POTS	none	6			0.587		0.137		1.619		2.566		1.394		1.756	

‘Table 3.3.5: continued

Bal	A	COD	POTS	none	7			0.205		0.05		0.226		0.87		0.32		0.214	
Bal	A	COD	POTS	none	8			0.009		0.038		0.054		0.125		0.061		0.139	
Bal	A	COD	POTS	none	9			0.009		0.009		0.028		0.007		0		0.07	
Bal	A	COD	r-DEM_SEINE	none	1	95.238	33.495	83.986	98.499	31.738	28.074	6.235	252.374	8.144	6.91	10.966	5.78	0.006	4.512
Bal	A	COD	r-DEM_SEINE	none	2	325.636	153.42	781.996	105.029	195.954	111.83	351.521	196.09	110.552	1.41	16.69	11.609	59.817	9.142
Bal	A	COD	r-DEM_SEINE	none	3	819.498	55.411	158.968	30.537	1015.075	42.505	380.874	55.554	414.228	0.2	122.564	10.497	241.402	7.52
Bal	A	COD	r-DEM_SEINE	none	4	55.816	6.323	145.72	3.187	51.533	5.205	461.559	4.97	279.735	0.02	215.344	1.792	148.637	1.73
Bal	A	COD	r-DEM_SEINE	none	5	10.157	0.791	19.44	0.36	19.808	0.864	83.965	0.72	167.307		102.863	0.284	52.239	0.351
Bal	A	COD	r-DEM_SEINE	none	6	1.559	0.051	4.807	0.03	2.921	0.02	15.407	0.02	66.205		25.533	0.045	11.266	0.048
Bal	A	COD	r-DEM_SEINE	none	7	0.547		0.633		0.826		1.82		17.534		7.326		1.664	
Bal	A	COD	r-DEM_SEINE	none	8	0.001		0.359		0.39		0.614		2.662		0.752		0.384	
Bal	A	COD	r-DEM_SEINE	none	9			0.013		0.17		0.33		0.152		0		0.145	
Bal	A	COD	r-GILL	none	1	144.728		207.303	49.764	113.775	0.191	47.115	0.303	6.436	0.466	110.424	43.962	29.783	78.251
Bal	A	COD	r-GILL	none	2	698.335		2748.249	38.755	916.596	0.166	938.331	0.752	231.366	1.832	162.85	164.276	1036.075	123.507
Bal	A	COD	r-GILL	none	3	1599.098		802.492	2.446	2957.087	0.069	1045.492	0.06	755.267	0.914	469.971	243.437	516.315	22.98
Bal	A	COD	r-GILL	none	4	315.254		805.906	0.041	310.229		1367.781		460.659	0.104	701.702	86.104	717.373	16.913
Bal	A	COD	r-GILL	none	5	70.641		193.791		159.137		375.881		361.942	0.007	350.331	5.129	327.492	3.739
Bal	A	COD	r-GILL	none	6	15.217		75.999		26.498		90.452		172.74		139.098	0.299	90.28	
Bal	A	COD	r-GILL	none	7	3.759		27.567		6.422		13.876		54.705		53.945		29.229	
Bal	A	COD	r-GILL	none	8	0.259		9.848		1.925		4.372		20.49		11.003		5.928	
Bal	A	COD	r-GILL	none	9			0.308		0.83		1.872		0.275		1.093		0.522	
Bal	A	COD	r-LONGLINE	none	1	25.909		20.077		6.591		4.214		4.23		11.391	0.692	0.183	
Bal	A	COD	r-LONGLINE	none	2	106.176		604.882		112.838		133.014		37.839		16.919	2.221	57.777	
Bal	A	COD	r-LONGLINE	none	3	241.11		200.849		420.531		135.101		80.329		51.741	0.836	93.073	
Bal	A	COD	r-LONGLINE	none	4	37.396		193.047		28.09		173.786		55.693		91.567	0.028	71.107	
Bal	A	COD	r-LONGLINE	none	5	6.027		43.748		17.969		46.794		29.733		39.859	0.003	31.505	
Bal	A	COD	r-LONGLINE	none	6	1.477		15.662		3.376		10.569		12.948		15.626		10.015	
Bal	A	COD	r-LONGLINE	none	7	0.393		7.363		0.64		1.997		3.98		5.372		2.742	
Bal	A	COD	r-LONGLINE	none	8	0.021		2.089		0.659		1.064		0.832		1.205		0.798	
Bal	A	COD	r-LONGLINE	none	9			0.065		0.048		0.469		0.04		0.072		0.064	
Bal	A	COD	r-OTTER	BACOMA	1					190.925	374.631	681.367	700.85	138.263	195.363	14.309	118.15	92.798	246.326
Bal	A	COD	r-OTTER	BACOMA	2				1.71	1509.086	300.3	2293.944	674.622	1489.189	438.133	272.286	310.083	1574.892	798.091
Bal	A	COD	r-OTTER	BACOMA	3			8.815	3.419	3806.33	161.139	1764.361	72.631	2306.211	192.906	1194.768	367.205	126.408	204.851
Bal	A	COD	r-OTTER	BACOMA	4			64.352	0.57	95.523		1146.095	25.98	765.941	20.621	1096.295	132.903	649.538	158.161
Bal	A	COD	r-OTTER	BACOMA	5			57.299		34.134		44.341		213.853	0.708	272.874	8.158	229.17	43.714
Bal	A	COD	r-OTTER	BACOMA	6			29.972		2.378		14.93		8.533		84.253	1.378	45.882	0.019
Bal	A	COD	r-OTTER	BACOMA	7							0.536		4.162		11.296		14.731	
Bal	A	COD	r-OTTER	BACOMA	8			1.763				0.22		2.323		1.75		1.512	
Bal	A	COD	r-OTTER	BACOMA	9							0.59		0.882		1.297		0.15	
Bal	A	COD	r-OTTER	none	1	640.812	415.127	418.881	707.1	118.419	4.773	41.697	15.832	53.625	18.221	322.178	15.312	2.028	7.095
Bal	A	COD	r-OTTER	none	2	3131.414	388.368	6673.821	528.751	1022.277	7.642	1667.457	11.596	677.274	17.986	464.318	17.115	694.811	28.009
Bal	A	COD	r-OTTER	none	3	6348.471	44.898	1645.394	1.536	4501.082	2.741	1639.089	3.445	1464.901	5.586	1215.248	5.764	1792.786	2.255
Bal	A	COD	r-OTTER	none	4	696.05	0.011	1423.472	0.247	244.705	0.37	2019.189	0.663	1005.707	1.209	1725.443	1.291	1156.402	0.56
Bal	A	COD	r-OTTER	none	5	132.425		274.103	0.029	153.741	0.05	364.712	0.01	638.215	0.033	807.725	0.045	445.664	0.08
Bal	A	COD	r-OTTER	none	6	26.604		86.504		23.696		93.867		266.539		234.117		111.346	
Bal	A	COD	r-OTTER	none	7	8.021		24.926		4.815		8.608		68.581		74.155		22.485	
Bal	A	COD	r-OTTER	none	8	1.204		9.497	0.01	1.399		3.952		28.589		13.274		7.799	
Bal	A	COD	r-OTTER	none	9			0.145		0.522		1.649		0.219		0.593		1.207	
Bal	A	COD	r-OTTER	T90	1													1.201	4.032
Bal	A	COD	r-OTTER	T90	2													16.002	4.137
Bal	A	COD	r-OTTER	T90	3													4.499	0.177
Bal	A	COD	r-OTTER	T90	4													2.319	
Bal	A	COD	r-OTTER	T90	5													0.712	
Bal	A	COD	r-OTTER	T90	6													0.194	
Bal	A	COD	r-OTTER	T90	7													0.059	
Bal	A	COD	r-OTTER	T90	8													0.023	
Bal	A	COD	r-OTTER	T90	9													0.004	
Bal	A	COD	r-PEL_TRAWL	BACOMA	1														
Bal	A	COD	r-PEL_TRAWL	BACOMA	2				0.029										
Bal	A	COD	r-PEL_TRAWL	BACOMA	3			0.991	0.225										
Bal	A	COD	r-PEL_TRAWL	BACOMA	4			7.018	0.008										
Bal	A	COD	r-PEL_TRAWL	BACOMA	5			2.394											
Bal	A	COD	r-PEL_TRAWL	BACOMA	6														
Bal	A	COD	r-PEL_TRAWL	BACOMA	7			0.165											
Bal	A	COD	r-PEL_TRAWL	BACOMA	8														
Bal	A	COD	r-PEL_TRAWL	BACOMA	9														
Bal	A	COD	r-PEL_TRAWL	none	1	3.25		0.994		9.189		0.346		0.01		5.444			
Bal	A	COD	r-PEL_TRAWL	none	2	12.207		70.232		37.824		5.203		0.98		6.113		2.922	
Bal	A	COD	r-PEL_TRAWL	none	3	17.649		20.587		56.597		4.94		1.131		5.6		14.62	
Bal	A	COD	r-PEL_TRAWL	none	4	2.827		16.877		3.829		5.498		0.843		6.205		8.687	

Table 3.3.5: continued

Bal	A	COD	r-PEL_TRAWL	none	5	0.297	4.253	0.949	1.188	0.846		2.232		2.937		
Bal	A	COD	r-PEL_TRAWL	none	6	0.085	1.038	0.108	0.221	0.41		0.516		0.729		
Bal	A	COD	r-PEL_TRAWL	none	7	0.011	0.292	0.025	0.023	0.114		0.134		0.108		
Bal	A	COD	r-PEL_TRAWL	none	8	0	0.112	0.01	0.007	0.055		0.042		0.043		
Bal	A	COD	r-PEL_TRAWL	none	9		0.001	0.004	0.003			0				
Bal	A	COD	r-TRAMMEL	none	1	3.688	6.236	2.473	0.396	0.567	0.046	2.901	11.44	3.207	0.864	
Bal	A	COD	r-TRAMMEL	none	2	13.911	84.467	29.237	20.792	12.654	0.126	3.929	35.718	75.557	1.046	
Bal	A	COD	r-TRAMMEL	none	3	53.046	40.106	196.202	30.394	47.133	0.078	13.083	21.735	71.223	0.047	
Bal	A	COD	r-TRAMMEL	none	4	23.178	78.031	31.435	108.467	48.494	0.025	36.621	3.491	70.98		
Bal	A	COD	r-TRAMMEL	none	5	11.493	20.939	34.764	34.99	52.878	0.003	40.037	0.107	41.682		
Bal	A	COD	r-TRAMMEL	none	6	2.778	13.486	7.465	15.874	23.394		15.147	0.02	13.465		
Bal	A	COD	r-TRAMMEL	none	7	0.693	4.962	1.586	1.941	7.499		9.534		4.236		
Bal	A	COD	r-TRAMMEL	none	8	0.068	2.279	0.416	1.033	5.269		2.53		1.451		
Bal	A	COD	r-TRAMMEL	none	9		0.027	0.109	0.376	0.129		0.301		0.093		
Bal	A	COD	TRAMMEL	none	1		0.279	0.006	0.011							
Bal	A	COD	TRAMMEL	none	2	0.098	4.641	0.135	0.996					0.063		
Bal	A	COD	TRAMMEL	none	3	0.784	2.005	1.597	1.252	0.094				0.153		
Bal	A	COD	TRAMMEL	none	4	0.492	3.422	0.286	2.148	0.307				0.126		
Bal	A	COD	TRAMMEL	none	5	0.204	0.704	0.278	0.395	0.569				0.056		
Bal	A	COD	TRAMMEL	none	6	0.046	0.352	0.071	0.124	0.288				0.01		
Bal	A	COD	TRAMMEL	none	7	0.008	0.108	0.019	0.008	0.073				0.002		
Bal	A	COD	TRAMMEL	none	8		0.043	0.014	0.005	0.058						
Bal	A	COD	TRAMMEL	none	9		0.002	0.003	0.003					0		
Bal	B	COD	DREDGE	none	1											
Bal	B	COD	DREDGE	none	2					0.043						
Bal	B	COD	DREDGE	none	3					0.858						
Bal	B	COD	DREDGE	none	4					2.858						
Bal	B	COD	DREDGE	none	5					2.557						
Bal	B	COD	DREDGE	none	6					0.751						
Bal	B	COD	DREDGE	none	7					0.099						
Bal	B	COD	DREDGE	none	8					0.006						
Bal	B	COD	DREDGE	none	9					0.001						
Bal	B	COD	GILL	none	1											
Bal	B	COD	GILL	none	2	1.789	3.784	8.672	0.253	0.27						
Bal	B	COD	GILL	none	3	17.892	8.067	37.673	4.848	2.021		0.168				
Bal	B	COD	GILL	none	4	18.115	13.437	13.427	21.349	2.847		0.479				
Bal	B	COD	GILL	none	5	3.364	5.564	3.062	13.177	2.288		0.417				
Bal	B	COD	GILL	none	6	0.926	0.633	0.485	1.671	0.891		0.13				
Bal	B	COD	GILL	none	7	0.333	0.162	0.05	0.232	0.135		0.026				
Bal	B	COD	GILL	none	8	0.059	0.018	0.026	0.139	0.012		0.003				
Bal	B	COD	GILL	none	9	0.013	0.006	0.01	0.015	0.003						
Bal	B	COD	none	none	1											
Bal	B	COD	none	none	2	60.055	3.432	11.003	0	0.062				0.019		
Bal	B	COD	none	none	3	356.007	17.15	59.082	1.352	1.055				0.311		
Bal	B	COD	none	none	4	355.396	19.589	20.97	7.69	1.905				0.834		
Bal	B	COD	none	none	5	64.172	4.194	4.791	4.736	1.648				0.501		
Bal	B	COD	none	none	6	16.392	0.419	0.995	0.704	0.635				0.074		
Bal	B	COD	none	none	7	5.482	0.145	0.194	0.159	0.125				0.005		
Bal	B	COD	none	none	8	0.809	0.02	0.085	0.104	0.033				0.004		
Bal	B	COD	none	none	9	0.096	0.006	0.033	0.015	0.008				0.001		
Bal	B	COD	OTTER	none	1								0.361			
Bal	B	COD	OTTER	none	2	10.12	17.505	7.492	0.179	0.237		0.148	4.626	0.476		
Bal	B	COD	OTTER	none	3	50.884	44.261	38.665	3.434	2.95		5.005	3.546	3.155		
Bal	B	COD	OTTER	none	4	34.852	44.838	12.293	13.564	6.12		17	0.233	4.003		
Bal	B	COD	OTTER	none	5	4.165	10.175	2.688	7.405	5.179		10.97	0	1.248		
Bal	B	COD	OTTER	none	6	1.764	2.085	0.62	0.835	1.732		2.973		0.303		
Bal	B	COD	OTTER	none	7	0.767	0.853	0.212	0.12	0.294		0.617		0.073		
Bal	B	COD	OTTER	none	8	0.128	0.128	0.052	0.095	0.047		0.26		0.024		
Bal	B	COD	OTTER	none	9	0.023	0.048	0.028	0.014	0.015		0.047		0.007		
Bal	B	COD	PEL_TRAWL	none	1								1.356			
Bal	B	COD	PEL_TRAWL	none	2	61.492	98.261	70.241	2.977	8.673		0.107	62.596	2.083		
Bal	B	COD	PEL_TRAWL	none	3	239.921	240.13	287.085	55.554	79.944		32.897	80.612	57.622		
Bal	B	COD	PEL_TRAWL	none	4	160.101	225.547	78.138	259.533	146.085		104.731	4.303	67.352		
Bal	B	COD	PEL_TRAWL	none	5	19.924	46.652	14.525	161.061	118.171		100.758	0	20.134		
Bal	B	COD	PEL_TRAWL	none	6	7.302	10.449	2.481	20.42	39.39		42.573		4.849		
Bal	B	COD	PEL_TRAWL	none	7	3.136	4.535	0.645	2.808	5.812		15.802		1.801		
Bal	B	COD	PEL_TRAWL	none	8	0.482	0.724	0.178	1.683	0.386		4.871		0.888		
Bal	B	COD	PEL_TRAWL	none	9	0.1	0.245	0.09	0.246	0.083		0.96		0.228		
Bal	B	COD	POTS	none	1											
Bal	B	COD	POTS	none	2		0.022		0.007					0.545		

Table 3.3.5: continued

Bal	B	COD	POTS	none	3			0.067				0.054						2.549	
Bal	B	COD	POTS	none	4			0.077				0.137						2.088	
Bal	B	COD	POTS	none	5			0.017				0.05						0.59	
Bal	B	COD	POTS	none	6			0.001				0.008						0.154	
Bal	B	COD	POTS	none	7			0				0.002						0.049	
Bal	B	COD	POTS	none	8							0.002						0.01	
Bal	B	COD	POTS	none	9			0				0						0.003	
Bal	B	COD	r-DEM_SEINE	none	1														
Bal	B	COD	r-DEM_SEINE	none	2	0.014		36.387		9.889		0.001							
Bal	B	COD	r-DEM_SEINE	none	3	0.177		29.443		56.552		4.431							
Bal	B	COD	r-DEM_SEINE	none	4	0.096		15.303		20.222		24.796							
Bal	B	COD	r-DEM_SEINE	none	5	0.008		4.785		4.248		14.834							
Bal	B	COD	r-DEM_SEINE	none	6	0.004		0.931		0.852		1.918							
Bal	B	COD	r-DEM_SEINE	none	7	0.002		0.301		0.197		0.291							
Bal	B	COD	r-DEM_SEINE	none	8	0.001		0.059		0.049		0.144							
Bal	B	COD	r-DEM_SEINE	none	9	0		0.016		0.016		0.016							
Bal	B	COD	r-GILL	none	1		8.257				1.051		45.501		0.811		72.437		196.895
Bal	B	COD	r-GILL	none	2	126.724	49.104	296.943	29.801	133.605	14.065	33.407	183.839	24.368	134.741	308.59	680.599	63.832	1151.73
Bal	B	COD	r-GILL	none	3	1845.034	152.672	1818.167	122.042	1010.953	72.027	759.356	161.786	1170.544	174.137	1979.567	389.138	466.324	845.976
Bal	B	COD	r-GILL	none	4	3038.281	42.581	2311.563	44.411	1032.055	79.226	2189.615	53.736	1511.22	52.972	2405.557	13.713	3465.495	137.894
Bal	B	COD	r-GILL	none	5	1409.652	23.987	890.283	8.345	752.975	5.913	1222.241	47.102	1423.44	25.739	1667.453		1447.7	
Bal	B	COD	r-GILL	none	6	402.9	7.118	171.678	2.13	167.836		297.705	14.488	452.082	3.978	710.614		275.539	
Bal	B	COD	r-GILL	none	7	97.652	0.74	45.097	0.531	35.18		71.248	2.833	103.039	0.073	248.002		60.114	
Bal	B	COD	r-GILL	none	8	14.251		5.418		5.575		17.572		17.014		52.847		24.593	
Bal	B	COD	r-GILL	none	9	3.611		3.13		2.137		5.005		2.335		11.208		3.547	
Bal	B	COD	r-LONGLINE	none	1				0.113								21.346		28.361
Bal	B	COD	r-LONGLINE	none	2	316.944		447.752		351.051		4.646		5.511		105.374	178.479	16.407	367.57
Bal	B	COD	r-LONGLINE	none	3	1283.902		1371.774	19.118	1999.403		361.239		463.233		482.876	87.134	131.496	335.51
Bal	B	COD	r-LONGLINE	none	4	998.512		1005.761		1098.55		1046.827		764.862		315.939	2.561	874.702	23.751
Bal	B	COD	r-LONGLINE	none	5	182.028		238.877		279.634		395.17		253.761		146.13		340.817	0.45
Bal	B	COD	r-LONGLINE	none	6	78.901		48.952		41.61		84.881		78.11		50.851		75.727	
Bal	B	COD	r-LONGLINE	none	7	36.704		13.294		14.288		10.313		9.329		20.322		18.97	
Bal	B	COD	r-LONGLINE	none	8	5.777		2.472		6.572		6.181		2.504		4.972		10.067	
Bal	B	COD	r-LONGLINE	none	9	1.267		0.955		3.459		1.239		0.749		2.756		1.517	
Bal	B	COD	r-OTTER	BACOMA	1				13.19		1.767			173.852	170.408	34.831	190.633	134.93	353.359
Bal	B	COD	r-OTTER	BACOMA	2		147.948	59.263	943.001	422.064	1376.345	32.218	673.868	1852.019	942.251	1243.485	2346.651	4477.582	2518.295
Bal	B	COD	r-OTTER	BACOMA	3	594.429	407.317	1956.184	1230.477	5223.278	3742.893	1575.446	2336.389	5140.719	1546.441	9756.083	2322.97	158.146	1973.094
Bal	B	COD	r-OTTER	BACOMA	4	1721.957	91.804	2675.945	321.707	5753.467	262.403	3526.924	161.632	5569.309	159.256	5746.123	234.916	6964.007	312.886
Bal	B	COD	r-OTTER	BACOMA	5	1297.787	1.602	1714.025	40.688	2387.761	44.04	3785.892		1713	26.811	1108.928	8.718	2295.843	34.01
Bal	B	COD	r-OTTER	BACOMA	6	370.027		534.719		813.947	2.086	1487.324		557.594		306.494	1.484	665.434	1.36
Bal	B	COD	r-OTTER	BACOMA	7	120.929		124.67		193.217		292.332		275.383		60.705		182.127	
Bal	B	COD	r-OTTER	BACOMA	8	73.972		33.313		49.735		54.095		52.778		27.047		34.725	
Bal	B	COD	r-OTTER	BACOMA	9	16.3		10.439		16.369		15.096		13.901		5.335		8.556	
Bal	B	COD	r-OTTER	none	1	56.559	45.891		15.543		35.202		14.105		13.693		14.289		16.462
Bal	B	COD	r-OTTER	none	2	717.67	130.126	1124.893	100.941	914.931	347.398	45.403	125.161	120.263	133.825	62.569	163.486	59.72	218.059
Bal	B	COD	r-OTTER	none	3	2216.117	82.321	1731.687	91.928	4885.862	473.963	722.638	175.991	1307.971	193.244	1693.2	234.662	1160.085	349.019
Bal	B	COD	r-OTTER	none	4	1304.436	18.517	1324.534	22.838	1654.541	158.356	3072.911	52.557	2375.298	58.442	3234.29	62.806	5191.537	143.407
Bal	B	COD	r-OTTER	none	5	149.195	3.389	267.843	4.26	327.422	40.454	1691.638	12.142	1933.505	13.444	2020.749	13.388	2668.003	32.611
Bal	B	COD	r-OTTER	none	6	27.742	0.411	43.842	0.5	58.581	5.965	184.09	1.512	653.351	1.717	511.25	1.598	348.583	3.218
Bal	B	COD	r-OTTER	none	7	9.433	0.021	16.068	0.034	11.005	0.644	23.954	0.154	97.354	0.165	102.633	0.15	39.812	0.23
Bal	B	COD	r-OTTER	none	8	2.917		2.619		3.608		15.767		10.203		26.365		19.055	
Bal	B	COD	r-OTTER	none	9	0.317		0.819		1.186		2.071		2.364		3.557		2.638	
Bal	B	COD	r-OTTER	T90	1														6.033
Bal	B	COD	r-OTTER	T90	2													5.121	72.831
Bal	B	COD	r-OTTER	T90	3													5.356	47.217
Bal	B	COD	r-OTTER	T90	4													271.908	4.234
Bal	B	COD	r-OTTER	T90	5													61.593	0.03
Bal	B	COD	r-OTTER	T90	6													15.937	
Bal	B	COD	r-OTTER	T90	7													3.97	
Bal	B	COD	r-OTTER	T90	8													1.186	
Bal	B	COD	r-OTTER	T90	9													0.326	
Bal	B	COD	r-PEL_TRAWL	BACOMA	1							256.286	286.88	30.225	33.551	3.853	10.833	25.12	11.285
Bal	B	COD	r-PEL_TRAWL	BACOMA	2	0.966	20.113				169.105	779.624	466.126	333.267	152.378	108.319	116.623	632.284	57.372
Bal	B	COD	r-PEL_TRAWL	BACOMA	3	310.747	86.213			2551.583	1160.52	1502.068	325.263	514.04	83.123	767.399	186.487	5.716	18.627
Bal	B	COD	r-PEL_TRAWL	BACOMA	4	854.516	0.105			1063.002		2119.728	36.71	203.297	8.969	740.563	56.471	355.971	12.737
Bal	B	COD	r-PEL_TRAWL	BACOMA	5	275.568				226.856		274.869		56.224	0.321	194.934	5.256	148.736	4.245
Bal	B	COD	r-PEL_TRAWL	BACOMA	6	47.06				38.357		25.127		4.116		47.194	0.457	31.722	
Bal	B	COD	r-PEL_TRAWL	BACOMA	7	20.599				13.87		9.471		2.078		7.689		12.039	
Bal	B	COD	r-PEL_TRAWL	BACOMA	8	21.849				8.453		3.47		0.138		2.065		1.24	
Bal	B	COD	r-PEL_TRAWL	BACOMA	9	7.858				10.566		0.914				0.773		0.416	

Table 3.3.5: continued

Bal	B	COD	r-PEL_TRAWL	none	1	59.274	17.324	24.126	53.573							
Bal	B	COD	r-PEL_TRAWL	none	2	434.71	33.007	426.13	31.064	135.15	0.182	0,344	0.95			
Bal	B	COD	r-PEL_TRAWL	none	3	823.655	4.906	211.812		1040.951	250.534	4,129	49.033		3.808	
Bal	B	COD	r-PEL_TRAWL	none	4	318.333		124.179		403.786	1234.89	5,614	170.878		24.426	
Bal	B	COD	r-PEL_TRAWL	none	5	51.643		20.228		79.349	757.606	4,155	114.779		12.663	
Bal	B	COD	r-PEL_TRAWL	none	6	9.294		2.409		12.249	71.504	1,479	23.624		1.695	
Bal	B	COD	r-PEL_TRAWL	none	7	7.032		1.048		1.497	6.092	0,146	3.787		0.242	
Bal	B	COD	r-PEL_TRAWL	none	8	3.01		0.179		0.452	3.312	0,017	2.103		0.107	
Bal	B	COD	r-PEL_TRAWL	none	9	0.059		0.032		0.178	0.599	0,006	0.121		0.014	
Bal	B	COD	r-TRAMMEL	none	1									0.009		
Bal	B	COD	r-TRAMMEL	none	2	0.609		0.265		0.525	0.068	0,495	0.057	0.038		
Bal	B	COD	r-TRAMMEL	none	3	5.68		0.291		2.276	0.642	7,959	3.117	0.006		
Bal	B	COD	r-TRAMMEL	none	4	3.291		0.255		0.713	3.512	8,789	12.824	0.001		
Bal	B	COD	r-TRAMMEL	none	5	0.233		0.222		0.217	3.886	5,547	14.165			
Bal	B	COD	r-TRAMMEL	none	6	0.061		0.099		0.083	2.312	2,102	6.719			
Bal	B	COD	r-TRAMMEL	none	7	0.025		0.026		0.011	1.187	0,428	2.938			
Bal	B	COD	r-TRAMMEL	none	8	0.006		0.008		0.008	0.759	0,09	0.923			
Bal	B	COD	r-TRAMMEL	none	9	0.001		0.006		0.006	0.2	0,029	0.17			
Bal	B	COD	TRAMMEL	none	1											
Bal	B	COD	TRAMMEL	none	2					0.032	0,035					
Bal	B	COD	TRAMMEL	none	3					0.062	0,147					
Bal	B	COD	TRAMMEL	none	4					0.007	0,398					
Bal	B	COD	TRAMMEL	none	5					0.002	0,237					
Bal	B	COD	TRAMMEL	none	6					0.001	0,049					
Bal	B	COD	TRAMMEL	none	7					0	0,017					
Bal	B	COD	TRAMMEL	none	8					0	0,008					
Bal	B	COD	TRAMMEL	none	9						0,001					
Bal	C	COD	r-GILL	none	1											1.492
Bal	C	COD	r-GILL	none	2										0,345	2.017
Bal	C	COD	r-GILL	none	3										5,616	0,51
Bal	C	COD	r-GILL	none	4										7,152	0,032
Bal	C	COD	r-GILL	none	5										3,581	
Bal	C	COD	r-GILL	none	6										1,733	
Bal	C	COD	r-GILL	none	7										1,134	
Bal	C	COD	r-GILL	none	8										0,517	
Bal	C	COD	r-GILL	none	9										0,079	

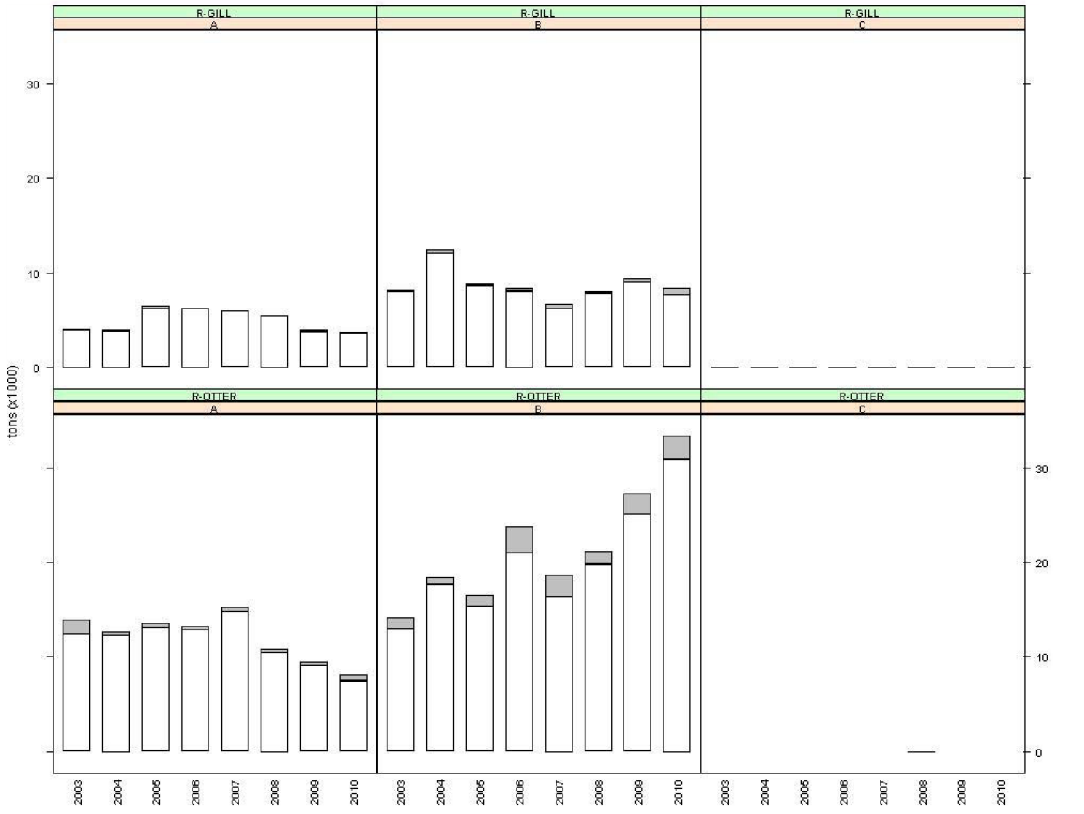

Figure 3.3.1 Catch and landings in tonnes of Baltic cod by sub-area and gear category 2003-2010. White bars show landings, grey bars discards. An "r" in front of the gear type indicates regulated gears in accordance with R(EC) 1098/2007 (see section 2.6).

3.4 Trends in CPUE and LPUE for Baltic cod by gear category in accordance with Council Regulation (EC) 2187/2007 and sub-area.

3.4.1 General considerations regarding CPUE and LPUE estimates

STECF-EWG notes that CPUE and LPUE series are often interpreted and used as stock abundance indicators. However, STECF-EWG emphasises that the presented trends in CPUE or LPUE by fleets are subject to selective fishing strategies (area, gear, mesh size etc.) and thus maybe biased. On the other hand, CPUE and LPUE derived from targeted fisheries may provide very useful information on stock abundance trends. Furthermore, it must be taken into consideration that the majority of the CPUE trends actually represent Landings per unit of effort (LPUE) due to no discard information or poorly estimated discards. Ideally, the CPUE should be based on age disaggregated abundance rather than overall weights and reflect technological creep when trends over longer periods are evaluated. Time constraints prevented STECF-EWG from estimations of CPUE trends by age and full evaluations of these. STECF-EWG recommends that CPUE in units of numbers at age/(kw*days) be estimated and compared with the recent assessment results provided by ICES.

STECF-EWG presents CPUE by derogations given units of g/(kW*days) in the following sections by management area.

3.4.2 Trends in CPUE and LPUE for Baltic cod by gear categories in accordance with Council Regulation (EC) 2187/2005 and area

Although it was explicitly asked to analyse CPUE and LPUE time series of Baltic cod for gear categories which are in accordance with Council regulation (EC) 2187/2005 only, we used the categories from the cod management plan to be consistent within the report.

The Tables 3.4.2.1 to 3.4.2.4 and Figures 3.4.2.1-3.4.2.2 provide data on CPUE and LPUE by year, derogation and country as well as aggregated over countries. The CPUE figures in the table should only be considered indicative since estimated discard ratios are often based on poor data.

CPUEs and LPUEs were in general higher for otter trawls, demersal seines and pelagic trawls compared to gill nets. CPUES and LPUES varied considerably between countries (Table 3.4.2.1 and 3.4.2.3). Aggregated over countries, a general trend over the years was not obvious in Area A, although CPUEs and LPUEs showed a high inter-annual variability. In area B CPUEs and LPUEs increased considerably for recent years for the main gears catching cod (r-Otter and r-Gill). This may be related to the increase of the Eastern Baltic cod stock.

Table 3.4.2.1 Baltic: Cod CPUE (g/KW*days) by derogation, country and year, 2004-2010 for areas A, B, C and 28.2.

ANNEX	SPECIES	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2008-2010
Bal	COD	28.2	GILL	none	LAT	0	0	0	0	0	0	0	0
Bal	COD	28.2	OTTER	none	LAT		0	0		0	0	0	0
Bal	COD	28.2	PEL_TRAWL	none	EST	0	3	4	17	9	0	2	4
Bal	COD	28.2			LAT	13	7	8	11	4	0	1	2
Bal	COD	28.2	r-GILL	none	EST	0	0	554217	0	0	0	0	0
Bal	COD	28.2			LAT	1912	2481	1745	2087	2542	2549	1594	2141
Bal	COD	28.2	r-OTTER	BACOMA	EST	0	0	760181	425339	0	0	0	0
Bal	COD	28.2			LAT	1966	2330	2629	1565	1674	6131	2467	3240
Bal	COD	28.2	r-PEL_TRAWL	BACOMA	LAT	0				0	0	0	0
Bal	COD	A	BEAM	none	GER	0				0	0	2262	45
Bal	COD	A	DEM_SEINE	none	DEN	0	0	4164	0	0	0	0	0
Bal	COD	A			GER	0	0	0	0	0	0	0	0
Bal	COD	A			POL	0	0	380	0	0	0	0	0
Bal	COD	A	DREDGE	none	DEN					0	0	0	0
Bal	COD	A			GER	0				0	0	0	0
Bal	COD	A	GILL	none	DEN	2454	2564	2215	2704	839	639	511	694
Bal	COD	A			GER	257	481	304	270	58	37	38	46
Bal	COD	A			POL	249	1473	1075	1150	325	166	279	252
Bal	COD	A			SWE	1840	11443	5931	5752	943	185	151	302
Bal	COD	A	none	none	DEN	55937	5112	10203	1469	704	259	580	492
Bal	COD	A			GER	76528	10095	8886	2598	1731	958	0	2138
Bal	COD	A			POL	0	0	0	2958334	0	0	0	0
Bal	COD	A			SWE	2365875	19776	76431	5590	3757	1969	2304	2661
Bal	COD	A	OTTER	none	DEN	159	386	417	331	448	354	664	473
Bal	COD	A			GER	327	601	656	371	394	264	527	381
Bal	COD	A			POL	3502	2653	36858	7741	6915	2164	1236	2121
Bal	COD	A			SWE	8856	59341	22037	40363	0	109344	0	425448
Bal	COD	A	PEL_TRAWL	none	DEN	437	728	802	823	616	434	263	422
Bal	COD	A			EST	0	133030	0	0	0	0	0	0
Bal	COD	A			GER	522	1052	957	489	368	311	386	355
Bal	COD	A			LAT	0	0	0	165533	0	0	0	0
Bal	COD	A			LIT	0	0	0	0	0	16389	142533	59129
Bal	COD	A			POL	532	633	829	1003	416	204	612	355
Bal	COD	A			SWE	200	566	629	393	321	210	561	315
Bal	COD	A	POTS	none	DEN	8620	4215	1296	2250	922	791	1419	1033
Bal	COD	A			GER	783	20064	3473	6415	2789	2260	3045	2716
Bal	COD	A			POL	35	2252	784	1518	611	629	982	739
Bal	COD	A			SWE	151	8347	3709	7309	5245	5241	12680	7042
Bal	COD	A	r-BEAM	BACOMA	GER	0	0	0	0	2327	0	0	2327
Bal	COD	A		none	DEN	0	0	0	0	0	0	0	0
Bal	COD	A			GER	0	0	0	0	0	0	0	0
Bal	COD	A	r-DEM_SEINE	BACOMA	GER	0	0	2177	3789	6510	4583	5354	5484
Bal	COD	A		none	DEN	3561	4328	5555	6551	6731	4963	5115	5817
Bal	COD	A			GER	189781	603034	0	0	0	0	0	0
Bal	COD	A	r-GILL	none	DEN	7116	4997	6253	7419	6233	4833	5488	5537
Bal	COD	A			EST	0	157972	108555	313850	139509	95430	0	162822
Bal	COD	A			GER	5893	5685	4300	4102	4367	4234	4135	4260
Bal	COD	A			LAT	27397	37771	38617	198432	429788	1118480	318597	470763
Bal	COD	A			LIT	0	337974	189509	0	0	0	0	0
Bal	COD	A			POL	24870	27152	40859	24362	33594	43348	43721	38757
Bal	COD	A			SWE	6292	9758	10951	10936	8713	7629	8346	8258
Bal	COD	A	r-LONGLINE	none	DEN	5237	6844	3595	5872	8779	8237	6916	7876
Bal	COD	A			GER	5972	10617	6183	7472	2948	2483	4159	3061
Bal	COD	A			LIT	0	103965	0	0	0	0	0	0
Bal	COD	A			POL	26998	14502	22826	23162	17651	49326	68636	33426
Bal	COD	A			SWE	10447	11592	18108	39557	19744	7010	7794	9227
Bal	COD	A	r-OTTER	BACOMA	EST	0	238867	0	0	0	0	0	0
Bal	COD	A			GER	0	0	4688	5694	4537	4110	4148	4284
Bal	COD	A			LAT	0	56885	0	452294	0	0	483964	1682323
Bal	COD	A			LIT	0	17413	79961	0	0	0	0	0
Bal	COD	A			POL	5057	3283	35953	15203	17444	22805	33459	22108
Bal	COD	A			SWE	4791	5197	20855	20939	15946	21826	29838	20388
Bal	COD	A		none	DEN	4017	4096	3155	3808	3291	3676	3686	3527
Bal	COD	A			EST	0	0	0	0	0	0	986111	3551553
Bal	COD	A			GER	6706	7464	152213	300819	179619	286102	420709	253524
Bal	COD	A			POL	103959	169669	128852	94382	103542	73285	0	119121
Bal	COD	A			SWE	464076	553919	430755	261582	529434	60988637	829341	967984
Bal	COD	A		T90	SWE	0	0	0	0	0	0	2195	2195

Table 3.4.2.1 continued

Bal	COD	A	r-PEL_TRAWL	BACOMA	EST	0	49849	0	157604	0	0	0	0
Bal	COD	A			GER	0	0	4196	6481	1743	0	3476	2645
Bal	COD	A			LIT	0	1965	0	0	0	0	0	0
Bal	COD	A			POL	3604	2378	67621	106666	0	0	81250	118750
Bal	COD	A			SWE	2776	13615	20247	0	8334	0	0	26389
Bal	COD	A		none	DEN	2417	5583	3719	2882	2473	8382	3555	4328
Bal	COD	A			GER	8302	6163	225000	0	0	0	0	0
Bal	COD	A	r-TRAMMEL	none	DEN	1520	1521	1891	1878	1698	1159	1483	1443
Bal	COD	A			GER	12624	13810	8726	4395	4640	3081	6161	4371
Bal	COD	A			POL	0	14736842	0	0	0	0	0	0
Bal	COD	A			SWE	9226	9541	13014	12888	11861	4368	7719	7189
Bal	COD	A	TRAMMEL	none	DEN	4065	2156	1472	7477	7056	0	1783	3105
Bal	COD	A			GER	0	4208	1272	1658	504	0	522	427
Bal	COD	A			POL	2548	14578	33519	21918	0	0	20408	85106
Bal	COD	A			SWE	0	129871	0	0	0	0	0	0
Bal	COD	B	DREDGE	none	DEN	0	0	0	0	4525	0	0	4525
Bal	COD	B			SWE	0	0	0	0	0	0	0	4444
Bal	COD	B	GILL	none	DEN	1878	2417	2546	5677	1634	2164	0	1891
Bal	COD	B			GER	0	0	0	0	0	17544	0	96491
Bal	COD	B			LAT	0	0	0	0	0	172	160	613
Bal	COD	B			LIT	0	0	0	0	0	102	198	447
Bal	COD	B			POL	103	92	166	121	31	10	32	23
Bal	COD	B			SWE	2476	1211	1486	1250	291	88	35	140
Bal	COD	B	none	none	DEN	1871252	7793	72670	7013	5988	893	575	1661
Bal	COD	B			SWE	121591	4762	6410	1299	1256	507	3610	975
Bal	COD	B	OTTER	none	DEN	443	496	343	207	208	221	103	187
Bal	COD	B			GER	0	16648	0	5248	861	486	270	491
Bal	COD	B			LAT	0	0	254546	0	0	0	0	0
Bal	COD	B			LIT	0	0	0	0	0	0	9050	60634
Bal	COD	B			POL	168	307	261	116	169	214	82	162
Bal	COD	B			SWE	270	240	122	65	49	89	24	55
Bal	COD	B	PEL_TRAWL	none	DEN	1293	993	904	705	517	476	560	516
Bal	COD	B			EST	0	46	58	106	133	465	284	238
Bal	COD	B			GER	1169	2350	1378	1541	1346	2324	1792	1762
Bal	COD	B			LAT	1207	2626	2033	1700	1801	2156	2426	2118
Bal	COD	B			LIT	0	0	0	0	0	1232	1578	1962
Bal	COD	B			POL	135	213	180	227	216	197	211	207
Bal	COD	B			SWE	85	113	70	98	85	120	160	115
Bal	COD	B	POTS	none	DEN	0	0	0	0	0	125000	0	218750
Bal	COD	B			POL	0	0	5	0	8	124	70	61
Bal	COD	B			SWE	0	0	10	0	17	271	201	147
Bal	COD	B	r-DEM_SEINE	BACOMA	GER	0	0	5699	6444	12079	17195	8659	12242
Bal	COD	B		none	DEN	1136	10313	8384	10046	0	0	0	0
Bal	COD	B			GER	1217	0	0	0	0	0	0	0
Bal	COD	B	r-GILL	none	DEN	51939	36151	32920	35238	41158	54615	61735	51327
Bal	COD	B			EST	0	30620	33007	52025	200470	302503	0	363212
Bal	COD	B			GER	1503257	201652	575688	564361	1589937	1427055	0	2219551
Bal	COD	B			LAT	8471	12568	14009	11733	14874	23417	23279	19840
Bal	COD	B			LIT	0	94574	150965	73584	62242	87724	80676	75914
Bal	COD	B			POL	3944	4997	5777	6186	9918	15794	10657	11781
Bal	COD	B			SWE	8387	7444	8112	8008	8778	11592	14105	11129
Bal	COD	B	r-LONGLINE	none	DEN	33576	24966	24320	24610	38800	21100	28526	28477
Bal	COD	B			GER	305921	212235	381338	176258	99716	106916	334394	144314
Bal	COD	B			LIT	0	12064394	63282	59465	50099	201831	557887	116310
Bal	COD	B			POL	6674	6257	6751	6851	7916	4318	5632	5737
Bal	COD	B			SWE	9650	9223	11730	12931	8830	6695	12504	9211
Bal	COD	B	r-OTTER	BACOMA	EST	0	124881	2939082	1403241	0	0	0	0
Bal	COD	B			GER	0	0	103240	166320	79773	93880	83717	85832
Bal	COD	B			LAT	43016	48781	47982	71658	65665	101620	105935	90301
Bal	COD	B			LIT	0	34542	87352	78053	39508	70360	69519	58313
Bal	COD	B			POL	2824	3301	4215	5728	9999	19972	18573	15510
Bal	COD	B			SWE	8443	8111	11386	12748	13240	20982	23849	19015
Bal	COD	B		none	DEN	5894	5900	5525	9386	9362	11504	13375	11465
Bal	COD	B			EST	0	29569621	0	0	0	0	95890	230645
Bal	COD	B			GER	21538	16628	0	0	3018621	1203942	0	2849656
Bal	COD	B			POL	943388	38611571	128500000	7259864	4436390	130092593	0	15853485
Bal	COD	B			SWE	15161	18073	39206	50608	91830	237274	152342	143112
Bal	COD	B		T90	SWE	0	0	0	0	0	9333	6952	7105

Table 3.4.2.1 continued

Bal	COD	B	r-PEL_TRAWL	BACOMA	EST	0	3091	12553	7310	1722	10248	14720	4961
Bal	COD	B			GER	0	0	31529	73005	72494	62156	27535	45072
Bal	COD	B			LAT	18220	160845	148874	41840	115008	155185	0	205810
Bal	COD	B			LIT	0	602727	49611	60131	19704	0	0	83770
Bal	COD	B			POL	2669	3921	8020	13683	53563	63751	492991	83992
Bal	COD	B			SWE	14422	5474	10780	28795	32828	55467	104198	54984
Bal	COD	B		none	DEN	39511	22638	13942	67132	13861	76675	25050	53013
Bal	COD	B			GER	10702	6306	0	0	0	0	0	0
Bal	COD	B			LIT	0	0	0	0	0	14733	28345	16404
Bal	COD	B	r-TRAMMEL	none	DEN	4360	536	530	2850	4738	4374	2708	4215
Bal	COD	B			POL	6767	42857	0	0	0	0	0	0
Bal	COD	B			SWE	1102	2425	4376	16129	5661	44041	151515	16169
Bal	COD	B	TRAMMEL	none	SWE	0	0	0	44	0	0	0	0
Bal	COD	C	GILL	none	SWE		3	0		0	0	0	0
Bal	COD	C	OTTER	none	DEN	0	0	284		0	0	0	0
Bal	COD	C			EST	0	0	18182		0	0	0	0
Bal	COD	C			GER	0	0	0	0	0	0	0	0
Bal	COD	C			POL	0	0	0		0	0	0	0
Bal	COD	C			SWE	0	0	14		0	0	0	0
Bal	COD	C	PEL_TRAWL	none	DEN					0	0	0	0
Bal	COD	C			EST	0				0	0	0	0
Bal	COD	C			GER					0	0	0	0
Bal	COD	C			LIT	0	0	0	0	0	0	0	0
Bal	COD	C			POL	0	0	0	0	0	0	0	0
Bal	COD	C			SWE					0	0	0	0
Bal	COD	C	r-GILL	none	EST	0	60241	60241	0	0	0	0	0
Bal	COD	C			SWE	133	107	104	161	213	556	585	455
Bal	COD	C	r-LONGLINE	none	SWE	0	0	0	0	0	0	0	0
Bal	COD	C	r-OTTER	BACOMA	SWE	0	0	0	0	463	0	0	463

Table 3.4.2.2 Baltic: Cod CPUE (g/KW*days) by derogation, and year, 2003-2010 for areas A, B, C and 28.2..

ANNEX	SPECIES	REG AREA COD	REG GEAR COD	SPECON	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2008-2010
Bal	COD	28.2	GILL	none	0	0	0	0	0	0	0	0	0
Bal	COD	28.2	OTTER	none	0		0	0		0	0	0	0
Bal	COD	28.2	PEL_TRAWL	none	9	13	2	3	7	3	0	1	1
Bal	COD	28.2	r-GILL	none	1923	1912	2481	1740	2087	2542	2549	1594	2141
Bal	COD	28.2	r-OTTER	BACOMA	2442	1966	2330	2620	1559	1674	6131	2467	3240
Bal	COD	28.2	r-PEL_TRAWL	BACOMA	12472	0				0	0	0	0
Bal	COD	A	BEAM	none	0	0				0	0	2262	45
Bal	COD	A	DEM_SEINE	none		0	0	348	0	0	0	0	0
Bal	COD	A	DREDGE	none	136					0	0	0	0
Bal	COD	A	GILL	none	412	113	309	207	196	44	25	26	33
Bal	COD	A	none	none	25855	31881	2896	4472	803	442	185	463	348
Bal	COD	A	OTTER	none	206	102	215	250	170	204	141	237	192
Bal	COD	A	PEL_TRAWL	none	107	90	176	196	147	101	66	102	89
Bal	COD	A	POTS	none	80	28	1175	384	716	306	287	470	353
Bal	COD	A	r-BEAM	BACOMA	0	0	0	0	0	2327	0	0	2327
Bal	COD	A	r-BEAM	none	2262	0	0	0	0	0	0	0	0
Bal	COD	A	r-DEM_SEINE	BACOMA	0	0	0	2177	3789	6510	4583	5354	5484
Bal	COD	A	r-DEM_SEINE	none	3893	3496	4297	5555	6551	6731	4963	5115	5817
Bal	COD	A	r-GILL	none	1872	1832	1815	1823	1925	1840	1643	1755	1753
Bal	COD	A	r-LONGLINE	none	2084	2036	2468	1856	2684	1785	1456	1894	1689
Bal	COD	A	r-OTTER	BACOMA	3813	2460	1736	3316	3432	2937	3003	3263	3046
Bal	COD	A	r-OTTER	none	2461	2440	2592	2998	3567	3115	3457	3624	3365
Bal	COD	A	r-OTTER	T90	0	0	0	0	0	0	0	2195	2195
Bal	COD	A	r-PEL_TRAWL	BACOMA	0	1568	977	3306	5882	1441	0	3333	2356
Bal	COD	A	r-PEL_TRAWL	none	2602	1872	2929	3658	2882	2473	8382	3555	4328
Bal	COD	A	r-TRAMMEL	none	1225	1183	1198	1388	1194	1125	706	1035	943
Bal	COD	A	TRAMMEL	none	681	1566	1286	669	1278	470	0	396	374
Bal	COD	B	DREDGE	none	0	0	0	0	0	4525	0	0	2242
Bal	COD	B	GILL	none	444	93	82	141	108	27	8	14	18
Bal	COD	B	none	none	93693	114172	2956	5891	1096	1038	323	496	614
Bal	COD	B	OTTER	none	87	84	105	67	34	31	44	15	31
Bal	COD	B	PEL_TRAWL	none	14	46	27	25	37	37	51	56	47
Bal	COD	B	POTS	none	0	0	0	3	0	5	85	52	43
Bal	COD	B	r-DEM_SEINE	BACOMA	0	0	0	5699	6444	12079	17195	8659	12242
Bal	COD	B	r-DEM_SEINE	none	9602	588	10313	8384	10046	0	0	0	0
Bal	COD	B	r-GILL	none	2346	1958	2041	2289	2300	3049	4425	4232	3831
Bal	COD	B	r-LONGLINE	none	2360	3490	3194	3414	3491	3386	2259	3363	2998
Bal	COD	B	r-OTTER	BACOMA	3359	2017	2067	2722	3490	4374	7551	7602	6372
Bal	COD	B	r-OTTER	none	3699	3532	3508	4843	7909	8456	10871	10898	10105
Bal	COD	B	r-OTTER	T90	0	0	0	0	0	0	9333	6952	7105
Bal	COD	B	r-PEL_TRAWL	BACOMA	6120	2004	1301	2811	3346	1422	6501	8630	3695
Bal	COD	B	r-PEL_TRAWL	none	2433	8421	4932	13942	67132	13861	12358	13298	12528
Bal	COD	B	r-TRAMMEL	none	983	778	434	473	2422	2579	3979	2660	3343
Bal	COD	B	TRAMMEL	none	0	0	0	0	44	0	0	0	0
Bal	COD	C	GILL	none			3	0		0	0	0	0
Bal	COD	C	OTTER	none		0	0	14		0	0	0	0
Bal	COD	C	PEL_TRAWL	none	0					0	0	0	0
Bal	COD	C	r-GILL	none	146	133	107	104	161	213	556	585	455
Bal	COD	C	r-LONGLINE	none		0	0	0	0	0	0	0	0
Bal	COD	C	r-OTTER	BACOMA	0	0	0	0	0	463	0	0	463

Table 3.4.2.3 Baltic: Cod LPUE (g/KW*days) by derogation, country and year, 2003-2009 for areas A, B, C and 28.2.

ANNEX	SPECIES	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	LPUE 2003	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2008-2010
Bal	COD	28.2	GILL	none	LAT	0	0	0	0	0	0	0	0	0
Bal			OTTER	none	LAT	0		0	0		0	0	0	0
Bal			PEL_TRAWL	none	EST	0	0	3	4	17	9	0	2	4
Bal					LAT	9	13	7	8	11	4	0	1	2
Bal			r-GILL	none	EST	0	0	0	542169	0	0	0	0	0
Bal					LAT	1884	1912	2432	1707	1953	2480	2549	1594	2123
Bal			r-OTTER	BACOMA	EST	0	0	0	760181	425339	0	0	0	0
Bal					LAT	2442	1955	2330	2629	1565	1674	6131	2467	3240
Bal			r-PEL_TRAWL	BACOMA	LAT	12472	0				0	0	0	0
Bal		A	BEAM	none	GER	0	0				0	0	2262	45
Bal			DEM_SEINE	none	DEN		0	0	4164	0	0	0	0	0
Bal					GER	0	0	0	0	0	0	0	0	0
Bal					POL	0	0	0	380	0	0	0	0	0
Bal			DREDGE	none	DEN	136					0	0	0	0
Bal					GER	0	0				0	0	0	0
Bal			GILL	none	DEN	3436	2454	2528	2215	2704	839	639	511	694
Bal					GER	529	257	474	304	270	58	37	38	46
Bal					POL	0	249	1452	1075	1150	325	166	279	252
Bal					SWE	4062	1840	11282	5931	5752	943	185	151	302
Bal			none	none	DEN	55367	55937	5112	10203	1469	704	259	580	492
Bal					GER	48835	76528	10095	8886	2598	1731	958	0	2138
Bal					POL	0	0	0	0	2958334	0	0	0	0
Bal					SWE	7186893	2365875	19776	76431	5590	3757	1969	2304	2661
Bal			OTTER	none	DEN	335	159	386	417	331	448	354	260	366
Bal					GER	550	327	601	656	371	394	264	206	295
Bal					POL	0	3502	2653	36858	7741	6915	2164	485	1645
Bal					SWE	29002	8856	59341	22037	40363	0	109344	0	330020
Bal			PEL_TRAWL	none	DEN	429	430	728	802	823	616	434	263	422
Bal					EST	0	0	133030	0	0	0	0	0	0
Bal					GER	475	514	1052	957	489	368	311	386	355
Bal					LAT	0	0	0	0	165533	0	0	0	0
Bal					LIT	0	0	0	0	0	0	16389	142533	59129
Bal					POL	0	524	633	829	1003	416	204	612	355
Bal					SWE	202	197	566	629	393	321	210	561	315
Bal			POTS	none	DEN	0	8620	4215	1296	2250	922	791	1419	1033
Bal					GER	310	783	20064	3473	6415	2789	2260	3045	2716
Bal					POL	0	35	2252	784	1518	611	629	982	739
Bal					SWE	107	151	8347	3709	7309	5245	5241	12680	7042
Bal			r-BEAM	BACOMA	GER	0	0	0	0	0	2327	0	0	2327
Bal				none	DEN	0	0	0	0	0	0	0	0	0
Bal					GER	2262	0	0	0	0	0	0	0	0
Bal			r-DEM_SEINE	BACOMA	GER	0	0	0	2177	3789	6510	4583	5354	5484
Bal				none	DEN	3676	3356	4058	5302	5977	6720	4888	5050	5774
Bal					GER	0	178832	565376	0	0	0	0	0	0
Bal			r-GILL	none	DEN	6991	7013	4798	6252	7417	6229	4531	5353	5393
Bal					EST	0	0	151735	108538	313797	139432	89458	0	158594
Bal					GER	5085	5809	5461	4299	4102	4364	3969	4034	4147
Bal					LAT	50512	27005	36281	38611	198399	429552	1048470	310842	458536
Bal					LIT	0	0	324630	189478	0	0	0	0	0
Bal					POL	0	24513	26079	40852	24358	33576	40634	42658	37751
Bal					SWE	5473	6201	9372	10949	10934	8708	7151	8144	8043
Bal			r-LONGLINE	none	DEN	3765	5204	6539	3595	5872	8779	8210	6916	7867
Bal					GER	5009	5934	10144	6183	7472	2948	2475	4159	3058
Bal					LIT	0	0	99338	0	0	0	0	0	0
Bal					POL	0	26830	13858	22826	23162	17651	49164	68636	33389
Bal					SWE	51100	10381	11077	18108	39557	19744	6987	7794	9216
Bal			r-OTTER	BACOMA	EST	0	0	238390	0	0	0	0	0	0
Bal					GER	0	0	0	4407	5326	4267	3703	3462	3845
Bal					LAT	732955	0	56772	0	423031	0	0	403914	1510228
Bal					LIT	0	0	17378	75158	0	0	0	0	0
Bal					POL	0	4771	3276	33794	14220	16406	20548	27924	19846
Bal					SWE	3833	4519	5187	19601	19584	14996	19665	24903	18302
Bal				none	DEN	3471	3906	3927	3153	3803	3284	3669	3675	3518
Bal					EST	0	0	0	0	0	0	0	983286	3543550
Bal					GER	6149	6519	7157	152120	300472	179229	285569	419503	252953
Bal					POL	0	101051	162688	128772	94273	103317	73148	0	118853
Bal					SWE	106367	451095	531128	430490	261281	528286	60875000	826965	965803
Bal				T90	SWE	0	0	0	0	0	0	0	2016	2016
Bal			r-PEL_TRAWL	BACOMA	EST	0	0	49849	0	157604	0	0	0	0

Table 3.4.2.3 continued

Bal				GER	0	0	0	4196	6481	1743	0	3476	2645
Bal				LIT	0	0	1965	0	0	0	0	0	0
Bal				POL	0	3604	2378	67621	106666	0	0	81250	118750
Bal				SWE	0	2776	13615	20247	0	8334	0	0	26389
Bal			none	DEN	4225	2417	5583	3719	2882	2473	8382	3555	4328
Bal				GER	6590	8302	6163	225000	0	0	0	0	0
Bal		r-TRAMMEL	none	DEN	1470	1503	1470	1891	1878	1698	1099	1479	1422
Bal				GER	28771	12483	13342	8726	4395	4640	2926	6148	4307
Bal				POL	0	0	14236842	0	0	0	0	0	0
Bal				SWE	8687	9123	9217	13014	12888	11861	4147	7703	7082
Bal		TRAMMEL	none	DEN	1926	4065	2156	1472	7477	7056	0	1783	3105
Bal				GER	0	0	4208	1272	1658	504	0	522	427
Bal				POL	0	2548	14578	33519	21918	0	0	20408	85106
Bal				SWE	1052	0	129871	0	0	0	0	0	0
Bal	B	DREDGE	none	DEN	0	0	0	0	0	4525	0	0	4525
Bal				SWE	0	0	0	0	0	0	0	0	4444
Bal		GILL	none	DEN	1756	1878	2417	2546	5677	1634	2164	0	1891
Bal				GER	0	0	0	0	0	0	17544	0	96491
Bal				LAT	0	0	0	0	0	0	172	160	613
Bal				LIT	0	0	0	0	0	0	102	198	447
Bal				POL	0	103	92	166	121	31	10	32	23
Bal				SWE	593	2476	1211	1486	1250	291	88	35	140
Bal		none	none	DEN	224782	1871252	7793	72670	7013	5988	893	575	1661
Bal				SWE	160659	121591	4762	6410	1299	1256	507	3610	975
Bal		OTTER	none	DEN	154	443	496	343	207	208	203	103	178
Bal				GER	922	0	16648	0	5248	861	447	270	470
Bal				LAT	9706	0	0	254546	0	0	0	0	0
Bal				LIT	0	0	0	0	0	0	0	9050	57919
Bal				POL	0	168	307	261	116	169	197	82	156
Bal				SWE	261	270	240	122	65	49	81	24	52
Bal		PEL_TRAWL	none	DEN	183	1293	993	904	705	517	420	318	414
Bal				EST	0	0	46	58	106	133	410	160	192
Bal				GER	443	1169	2350	1378	1541	1346	2052	1014	1416
Bal				LAT	214	1207	2626	2033	1700	1801	1904	1373	1703
Bal				LIT	0	0	0	0	0	0	1088	893	1579
Bal				POL	0	135	213	180	227	216	174	119	167
Bal				SWE	18	85	113	70	98	85	106	90	93
Bal		POTS	none	DEN	0	0	0	0	0	0	125000	0	218750
Bal				POL	0	0	0	5	0	8	124	70	61
Bal				SWE	0	0	0	10	0	17	271	201	147
Bal		r-DEM_SEINE	BACOMA	GER	0	0	0	5699	6444	12079	17195	8659	12242
Bal			none	DEN	9602	1136	10313	8384	10046	0	0	0	0
Bal				GER	0	1217	0	0	0	0	0	0	0
Bal		r-GILL	none	DEN	31278	50447	35064	31738	32639	39838	52449	56512	48663
Bal				EST	0	0	29699	31822	48188	194050	290513	0	344363
Bal				GER	682711	1460072	195589	555036	522750	1539027	1370488	0	2104363
Bal				LAT	5713	8226	12190	13506	10868	14398	22488	21310	18810
Bal				LIT	0	0	91730	145550	68158	60248	84247	73851	71975
Bal				POL	0	3831	4846	5569	5729	9602	15167	9756	11168
Bal				SWE	4386	8148	7220	7820	7418	8497	11132	12911	10552
Bal		r-LONGLINE	none	DEN	5841	33175	24582	24320	24610	38710	19656	25153	26560
Bal				GER	121194	302269	208969	381338	176258	99488	99603	294849	134603
Bal				LIT	0	0	11878788	63282	59465	49984	188025	491911	108482
Bal				POL	0	6595	6161	6751	6851	7897	4024	4966	5351
Bal				SWE	3918	9536	9082	11730	12931	8809	6237	11027	8592
Bal		r-OTTER	BACOMA	EST	0	0	113968	2525397	1179522	0	0	0	0
Bal				GER	0	0	0	88709	139804	73347	84247	75884	77821
Bal				LAT	9264	40744	44518	41229	60234	60376	91194	96023	81875
Bal				LIT	0	0	31523	75057	65610	36325	63140	63015	52873
Bal				POL	0	2675	3012	3623	4816	9194	17923	16834	14064
Bal				SWE	4380	7996	7403	9784	10715	12175	18830	21618	17241
Bal			none	DEN	7932	5763	5751	5220	9161	9160	11256	13042	11202
Bal				EST	0	0	28829115	0	0	0	0	93500	225348
Bal				GER	25988	21061	16211	0	0	2953196	1178064	0	2784199
Bal				POL	0	922520	37644628	121407407	7085714	4340237	127296296	0	15489331
Bal				SWE	7889	14826	17621	37042	49395	89840	232175	148545	139824
Bal			T90	SWE	0	0	0	0	0	0	8075	6410	6517
Bal		r-PEL_TRAWL	BACOMA	EST	0	0	3091	10841	6642	1559	9426	14265	4628
Bal				GER	0	0	0	27231	66341	65664	57175	26688	42040
Bal				LAT	6120	17731	160845	128583	38020	104173	142748	0	191965
Bal				LIT	0	0	602727	42851	54642	17848	0	0	78134
Bal				POL	0	2597	3921	6927	12434	48517	58642	477804	78341
Bal				SWE	0	14034	5474	9310	26167	29735	51022	100987	51287
Bal			none	DEN	2433	39005	21838	13942	67132	13861	76675	25050	53013
Bal				GER	0	10566	6083	0	0	0	0	0	0

Table 3.4.2.4 Baltic: Cod LPUE (g/kW*days) by derogation and year, 2004-2010 for areas A; B, C and 28.2.

ANNEX	SPECIES	REG AREA COD	REG GEAR COD	SPECON	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2008-2010
Bal	COD	28.2	GILL	none	0	0	0	0	0	0	0	0
Bal	COD	28.2	OTTER	none		0	0		0	0	0	0
Bal	COD	28.2	PEL_TRAWL	none	13	2	3	7	3	0	1	1
Bal	COD	28.2	r-GILL	none	1912	2432	1702	1953	2480	2549	1594	2123
Bal	COD	28.2	r-OTTER	BACOMA	1955	2330	2620	1559	1674	6131	2467	3240
Bal	COD	28.2	r-PEL_TRAWL	BACOMA	0				0	0	0	0
Bal	COD	A	BEAM	none	0				0	0	2262	45
Bal	COD	A	DEM_SEINE	none	0	0	348	0	0	0	0	0
Bal	COD	A	DREDGE	none					0	0	0	0
Bal	COD	A	GILL	none	113	305	207	196	44	25	26	33
Bal	COD	A	none	none	31881	2896	4472	803	442	185	463	348
Bal	COD	A	OTTER	none	102	215	250	170	204	141	93	149
Bal	COD	A	PEL_TRAWL	none	89	176	196	147	101	66	102	89
Bal	COD	A	POTS	none	28	1175	384	716	306	287	470	353
Bal	COD	A	r-BEAM	BACOMA	0	0	0	0	2327	0	0	2327
Bal	COD	A	r-BEAM	none	0	0	0	0	0	0	0	0
Bal	COD	A	r-DEM_SEINE	BACOMA	0	0	2177	3789	6510	4583	5354	5484
Bal	COD	A	r-DEM_SEINE	none	3294	4029	5302	5977	6720	4888	5050	5774
Bal	COD	A	r-GILL	none	1806	1743	1822	1925	1839	1540	1712	1707
Bal	COD	A	r-LONGLINE	none	2023	2358	1856	2684	1785	1451	1894	1687
Bal	COD	A	r-OTTER	BACOMA	2321	1732	3117	3210	2762	2706	2723	2734
Bal	COD	A	r-OTTER	none	2372	2485	2996	3562	3108	3451	3614	3357
Bal	COD	A	r-OTTER	T90	0	0	0	0	0	0	2016	2016
Bal	COD	A	r-PEL_TRAWL	BACOMA	1568	977	3306	5882	1441	0	3333	2356
Bal	COD	A	r-PEL_TRAWL	none	1872	2929	3658	2882	2473	8382	3555	4328
Bal	COD	A	r-TRAMMEL	none	1170	1157	1388	1194	1125	670	1033	929
Bal	COD	A	TRAMMEL	none	1566	1286	669	1278	470	0	396	374
Bal	COD	B	DREDGE	none	0	0	0	0	4525	0	0	2242
Bal	COD	B	GILL	none	93	82	141	108	27	8	14	18
Bal	COD	B	none	none	114172	2956	5891	1096	1038	323	496	614
Bal	COD	B	OTTER	none	84	105	67	34	31	41	15	30
Bal	COD	B	PEL_TRAWL	none	46	27	25	37	37	45	32	38
Bal	COD	B	POTS	none	0	0	3	0	5	85	52	43
Bal	COD	B	r-DEM_SEINE	BACOMA	0	0	5699	6444	12079	17195	8659	12242
Bal	COD	B	r-DEM_SEINE	none	588	10313	8384	10046	0	0	0	0
Bal	COD	B	r-GILL	none	1902	1980	2207	2131	2952	4249	3874	3632
Bal	COD	B	r-LONGLINE	none	3449	3145	3414	3491	3378	2105	2965	2797
Bal	COD	B	r-OTTER	BACOMA	1910	1886	2339	2934	4022	6776	6891	5778
Bal	COD	B	r-OTTER	none	3454	3420	4575	7719	8273	10638	10627	9873
Bal	COD	B	r-OTTER	T90	0	0	0	0	0	8075	6410	6517
Bal	COD	B	r-PEL_TRAWL	BACOMA	1951	1301	2428	3041	1288	5980	8364	3446
Bal	COD	B	r-PEL_TRAWL	none	8313	4757	13942	67132	13861	12358	13298	12528
Bal	COD	B	r-TRAMMEL	none	778	434	473	2422	2579	3979	2660	3343
Bal	COD	B	TRAMMEL	none	0	0	0	44	0	0	0	0
Bal	COD	C	GILL	none		3	0		0	0	0	0
Bal	COD	C	OTTER	none	0	0	14		0	0	0	0
Bal	COD	C	PEL_TRAWL	none					0	0	0	0
Bal	COD	C	r-GILL	none	133	107	104	161	213	541	571	445
Bal	COD	C	r-LONGLINE	none	0	0	0	0	0	0	0	0
Bal	COD	C	r-OTTER	BACOMA	0	0	0	0	463	0	0	463

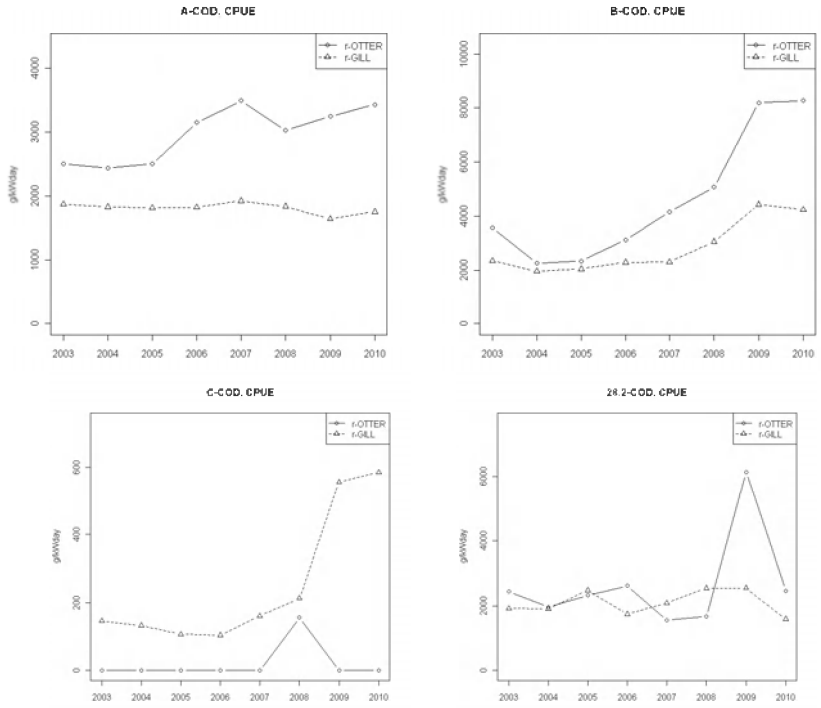

Figure 3.4.2.1. Cod CPUE (g/KW*days) by derogation, country and year, 2003-2010 for areas A, B, C and 28.2.

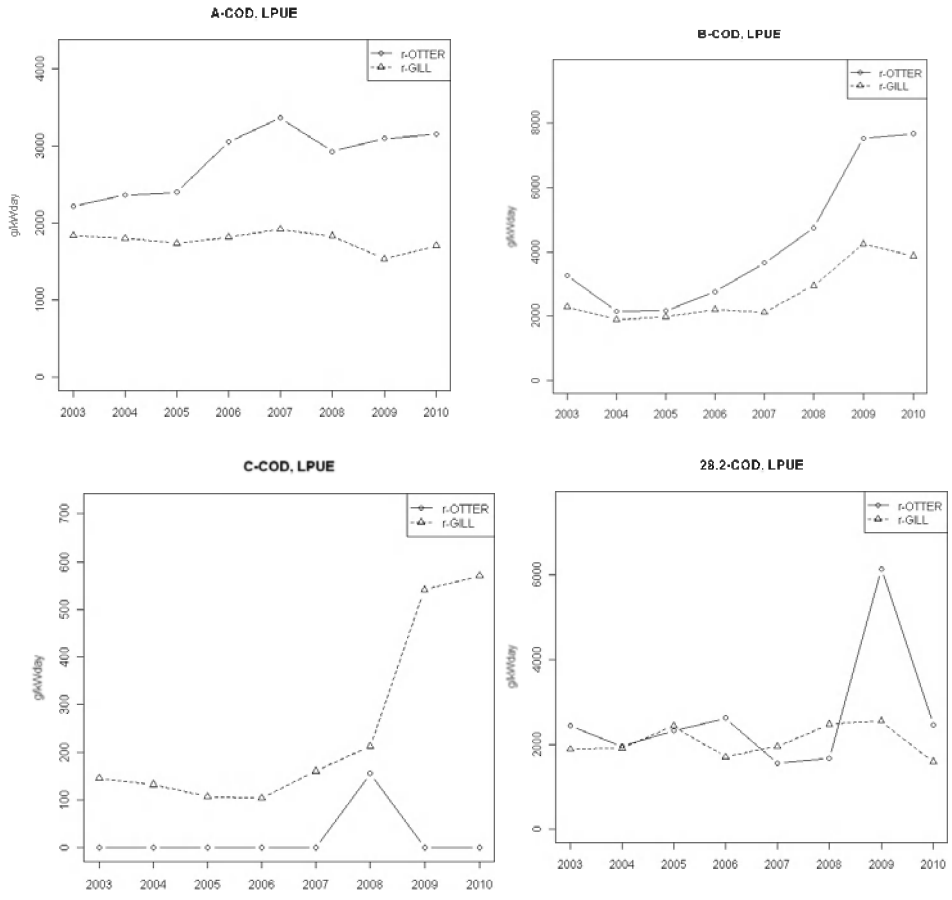

Figure 3.4.2.2. Cod LPUE (g/KW*days) by derogation, country and year, 2003-2010 for areas A, B, C and 28.2.

3.5 Ranked gear categories according to the proportional catches and landings of cod

Ranked gear categories according to catches and landings of cod by sub-area can be found in Tables 3.5.1 and 3.5.2.

There are some differences in the dominating gear that are responsible for the cod catches. Throughout the period of observations the otter trawl fishery was dominant in Areas A and B with gillnet fishery as the second most important cod catching gear. In area C, gillnets were the major gears although the total amount of cod catches was low compared to areas A and B. The variation in the dominance of certain gear types between years is limited in Areas A and B. However, in areas C larger shifts occurred. In the Sub-area 28.2. only trawls and gillnets were involved in cod fishery during the period (except minor catch by pelagic trawls in 2003). The proportion between gears has changed on annual basis without any trend. According to available data, cod catches from unregulated gear types do not play a significant role.

Table 3.5.1 Ranked gear categories according to the proportional catches of cod 2003-2010

ANNEX	REG_ARE	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel
Bal	28.2	COD	r-GILL	0.67	0.30	0.44	0.35	0.54	0.42	0.24	0.76
Bal	28.2	COD	r-OTTER	0.30	0.70	0.56	0.65	0.46	0.58	0.76	0.24
Bal	28.2	COD	r-PEL_TRAWL	0.03							

ANNEX	REG_ARE	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel
Bal	A	COD	r-OTTER	0.69	0.68	0.59	0.59	0.62	0.58	0.63	0.62
Bal	A	COD	r-GILL	0.20	0.21	0.28	0.28	0.24	0.29	0.26	0.28
Bal	A	COD	r-DEM_SEINE	0.07	0.07	0.05	0.06	0.07	0.08	0.05	0.04
Bal	A	COD	r-TRAMMEL	0.02	0.01	0.02	0.03	0.02	0.03	0.03	0.04
Bal	A	COD	r-LONGLINE	0.02	0.03	0.06	0.03	0.03	0.02	0.02	0.02
Bal	A	COD	r-PEL_TRAWL	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
Bal	A	COD	r-BEAM	0.00					0.00		

ANNEX	REG_ARE	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel
Bal	B	COD	r-OTTER	0.59	0.48	0.55	0.57	0.54	0.65	0.67	0.73
Bal	B	COD	r-GILL	0.34	0.32	0.29	0.20	0.19	0.25	0.23	0.18
Bal	B	COD	r-LONGLINE	0.05	0.09	0.11	0.09	0.06	0.05	0.03	0.05
Bal	B	COD	r-PEL_TRAWL	0.01	0.10	0.05	0.14	0.21	0.04	0.06	0.04
Bal	B	COD	r-DEM_SEINE	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
Bal	B	COD	r-TRAMMEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ANNEX	REG_ARE	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel
Bal	C	COD	r-GILL	1	1	1	1	1	0.94	1	1
Bal	C	COD	r-LONGLINE						0.00		
Bal	C	COD	r-OTTER						0.06		

Table 3.5.2 Ranked gear Categories according to the proportional landings of cod 2003-2010

ANNEX	REG_ARE	SPECIES	REG_GEA	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel
Bal	28.2	COD	r-GILL	0.67	0.30	0.44	0.35	0.52	0.41	0.24	0.76
Bal	28.2	COD	r-OTTER	0.30	0.70	0.56	0.65	0.48	0.59	0.76	0.24
Bal	28.2	COD	r-PEL_TRA	0.03							

ANNEX	REG_ARE	SPECIES	REG_GEA	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel
Bal	A	COD	r-OTTER	0.66818	0.674	0.58665	0.5844	0.61857	0.574	0.63647	0.59985
Bal	A	COD	r-GILL	0.21608	0.21049	0.27838	0.28369	0.2506	0.29653	0.25887	0.29152
Bal	A	COD	r-DEM_SEI	0.073	0.07244	0.04855	0.06325	0.06575	0.08015	0.05422	0.04178
Bal	A	COD	r-TRAMME	0.01626	0.01455	0.02437	0.02675	0.02436	0.03251	0.02757	0.03855
Bal	A	COD	r-LONGLIN	0.0214	0.02621	0.05591	0.03358	0.03158	0.01557	0.02127	0.02505
Bal	A	COD	r-PEL_TRA	0.00503	0.0023	0.00615	0.00833	0.00914	0.00076	0.00161	0.00323
Bal	A	COD	r-BEAM	0.00005					0.00049		

ANNEX	REG_ARE	SPECIES	REG_GEA	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel
Bal	B	COD	r-OTTER	0.5783	0.47258	0.53556	0.55046	0.51957	0.64745	0.65728	0.72758
Bal	B	COD	r-GILL	0.35703	0.32532	0.29818	0.2111	0.19565	0.25473	0.23696	0.18117
Bal	B	COD	r-LONGLIN	0.05559	0.09558	0.10936	0.09865	0.06646	0.05739	0.03283	0.0458
Bal	B	COD	r-PEL_TRA	0.00823	0.10625	0.05369	0.13578	0.21388	0.03646	0.06226	0.03973
Bal	B	COD	r-DEM_SEI	0.00031	0.00003	0.0031	0.0039	0.00326	0.00308	0.00889	0.00549
Bal	B	COD	r-TRAMME	0.00054	0.00024	0.0001	0.0001	0.00117	0.00089	0.00178	0.00024

ANNEX	REG_ARE	SPECIES	REG_GEA	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel
Bal	C	COD	r-GILL	1	1	1	1	1	0.94	1	1
Bal	C	COD	r-LONGLINE						0.00		
Bal	C	COD	r-OTTER						0.06		

3.6 Information on landings from vessels under 8m

The vessels under 8m are responsible for around 3.1 % of the total cod landings in the Baltic during 2010. In area A they were responsible for around 3.5% of cod landings and for 2.9% in area B.

Table 3.6.1. Cod landings taken by under 8 m vessels in 2003-2010 (t).

REG_AREA	COUNTRY	REG_GEAR	2003	2004	2005	2006	2007	2008	2009	2010
28.2	EST	r-LONGLINE						4		
	EST Total							4		
	LAT	GILL					137	120		11
		r-DEM_SEINE						12		5
		r-GILL			8417	39050	50342	35520	8461	5850
	LAT Total				8417	39050	50479	35652	8461	5866
28.2 Total					8417	39050	50479	35656	8461	5866
A	DEN	GILL	8104.24	1506.86	9201.17	8940.14	11552.67	15198.99	5663.41	673.92
		none	716782.2	646840.6	584614.5	468111	336745.4	321599.4	221899.4	288856.7
		OTTER				82.6		27.14		
		POTS			19633.92	8847.72	9205.18	1006.54	1432.4	5820.08
		r-DEM_SEINE			15.34					
		r-GILL	219.48	12.98	90017.48	60207.38	66164.37	73386.21	45812.67	28802.48
		r-LONGLINE	1149.32	676.14	19956.16	9686.03	41511.22	16144.41	9799.9	8125.65
		r-OTTER		708	17.7	185.26	48.38	548.7	21.24	21.06
		r-TRAMMEL	1266.14		2779.89	3340.82	5234.48	8923.99	3448.79	6117.59
		TRAMMEL				198.24		8.26	15.34	
	DEN Total		727521.4	649744.6	726236.2	559599.2	470461.7	436843.6	288093.1	338417.5
	GER	GILL	378369	318361	426537	371402	375492	274343	193613	307331
		none	154	19	2784	291	289			
		POTS		64		139	351	93	300	1470
		r-LONGLINE	140	2881	3798	3461	2289	1157	198	32
	GER Total		378663	321325	433119	375293	378421	275593	194111	308833
	POL	GILL		650	400	230	506	952	126.2	
		POTS		200			2			
		r-GILL		36704	13365	15393	23144	17898	15835	10235
		r-LONGLINE						370		
	POL Total			37554	13765	15623	23652	19220	15961.2	10235
	SWE	none	37	1430	1435	2172	3375	5805	80	645
		POTS	6926	9587	13549	6745	13212	4280	2671	1932
		r-GILL	34477	38975	41163	30316	39144	62260.7	23732	26380
		r-LONGLINE		6315	3153					
		r-TRAMMEL	3600	1397	3143	124		18	361	551
	SWE Total		45040	57704	62443	39357	55731	72363.7	26844	29508
A Total			1151224	1066328	1235563	989872.2	928265.7	804020.3	525009.3	686993.5
B	DEN	GILL						171.1		
		none	107246.7	178586.5	142016.5	147032.7	131899.2	163192.1	174053.5	123724
		r-GILL			3676.88		5859.88	22271.32	20906.06	9812.79
		r-LONGLINE			324.5		4437.98	13201.84	16851.58	8742.24
		r-OTTER						245.44		
	DEN Total		107246.7	178586.5	146017.9	147032.7	142197.1	199081.8	211811.2	142279
	EST	r-LONGLINE						4		
	EST Total							4		
	LAT	GILL				120		10		
		r-GILL			6885.3	62759	68333	30885	7076	10703
	LAT Total				6885.3	62879	68333	30895	7076	10703
	LIT	r-GILL			107680	60534	55577	48012	30700	48200
		r-LONGLINE				1043		2095	7000	11600
	LIT Total				107680	61577	55577	50107	37700	59800
	POL	GILL		5646	1748	4235	1440	2072	5916	6826
		POTS		793	1858.5	814	5	213	425	100
		r-GILL		285317.5	420445	382057.9	194835.5	329040.9	794467.4	467330
		r-LONGLINE		32274	52882.3	102677	66001	43576.5	82984	67851
	POL Total			324030.5	476933.8	489783.9	262281.5	374902.4	883792.4	542107
	SWE	GILL			140	1	1	90	55	44
		none	1061	211		5423	1791	2946	1422	1403
		POTS	22730	13459	12079	12951	11378.5	13754	7051	6025
		r-GILL	138466	117981.5	59795	74419	96492	99658	86209.2	63722
		r-LONGLINE	69954	57466.3	57702	32653	24713	37134	17310	5163
		r-TRAMMEL	17	108	359	200	308	148	21	5345
		TRAMMEL	123	176	186	288		7	2	2
	SWE Total		232351	189401.8	130261	125935	134683.5	153737	112070.2	81704
B Total			339597.7	692018.8	867778	887207.6	663072.1	808727.2	1252450	836593
C	EST	r-GILL				4				
		r-LONGLINE							2	
	EST Total					4			2	
	SWE	GILL		200.5	4.2		2.2	246.1		4
		POTS	9000							
		r-GILL							117	4
	SWE Total		9000	200.5	4.2		2.2	246.1	117	8
C Total			9000	200.5	4.2	4	2.2	246.1	119	8
Grand Total			1499822	1758547	2103345	1877084	1591340	1612994	1777578	1523594

3.7 Spatial distribution patterns of effective effort

Below only figures for the dominant gear groups in terms of the amount of landed cod (r-Otter and r-Gill) are presented. A full set of figures, however, will be made available on the web.

According to available data, the spatial distribution of deployed otter trawl effort (Figure 3.7.1) did not show any particular trend over the time series. However, the effort seems to be distributed more evenly across the areas A-C after 2006. The gillnet effort has been concentrated in areas A and B without any clear temporal pattern (Figure 3.7.2.)

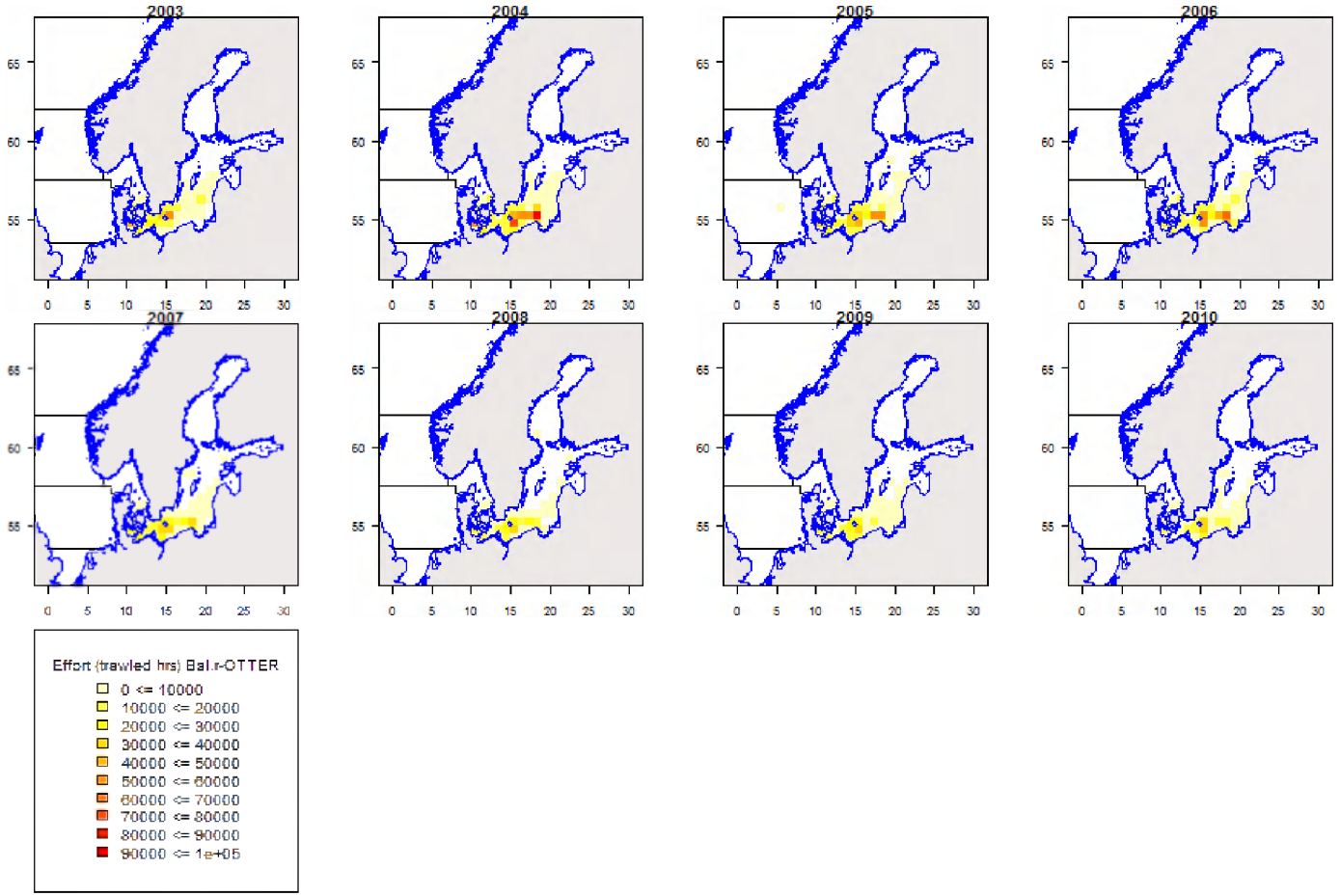

Figure. 3.7.1 Spatial distribution of effective effort (trawled hours) r-OTTER 2003-2010. There was no data reported on the spatial distribution from Finland.

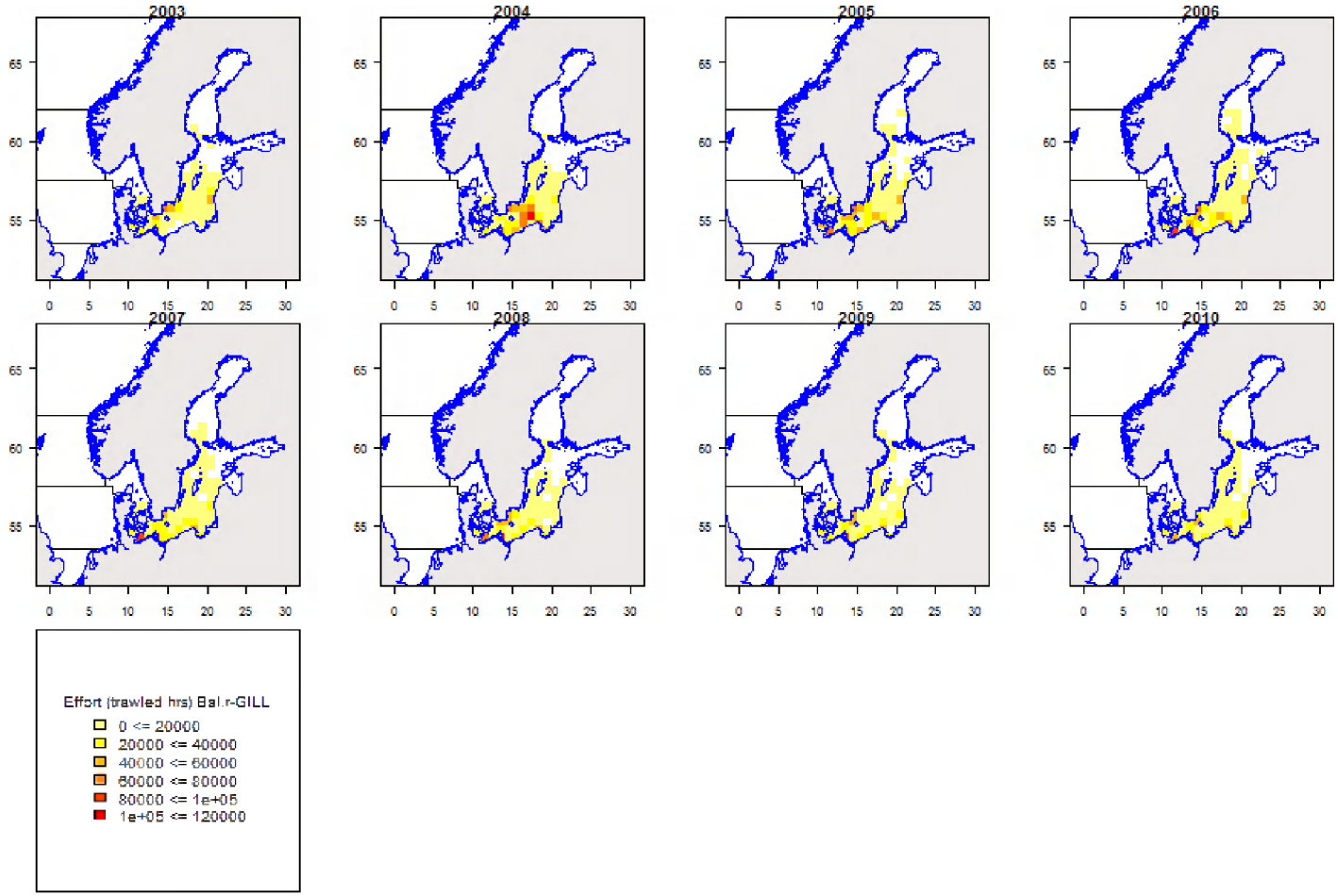

Figure. 3.7.2 Spatial distribution of effective effort (fishing hours) r-Gill 2003-2010. There was no data reported on the spatial distribution from Finland.

4 ALLOCATED AND USED EFFORT IN BALTIC COD FISHERY (REGULATED GEARS).

The EWG had the task of quantifying the evolution of the calculated maximum effort allocated to the cod fleet (regulated gear types) in relation to the effort actually used by that fleet and was asked to highlight possible shifts between metiers (ToR 5).

The Group analysed the data obtained by the Data Call of 23rd February 2011 (Annex 1) and found that the available data did not allow full-scale analyse of the issue. The problems were connected with partial non-compliance of fishing days of Member States and capacity data allocation between areas A, B and AB.

The Group analysed the available time series of summarised *used* effort by Member States (days at sea) in Areas A and B versus the maximum allowed number according to the limits given in the Section 2.3.

The information on maximum number of days available for Member States is presented in the Figure 4.1. and the level of utilisation in the Figures 4.2 and 4.3 .

In general, the overall available number of fishing days has not been restrictive in both main areas of the cod fishery. The usage of the maximum available fishing days has been in general below 40% in Area A. Latvia and Poland used less than 10% and Sweden, Germany 20-40% of available days. Denmark presented data for 2008-2010 when only 30-40% of available days were used.

The observed level of used fishing days in Area B was generally in the same range. Estonian and Germany used below 20%; Latvia, Sweden Poland 20-40% and Lithuania up to 50% (2009-2010) of days available.

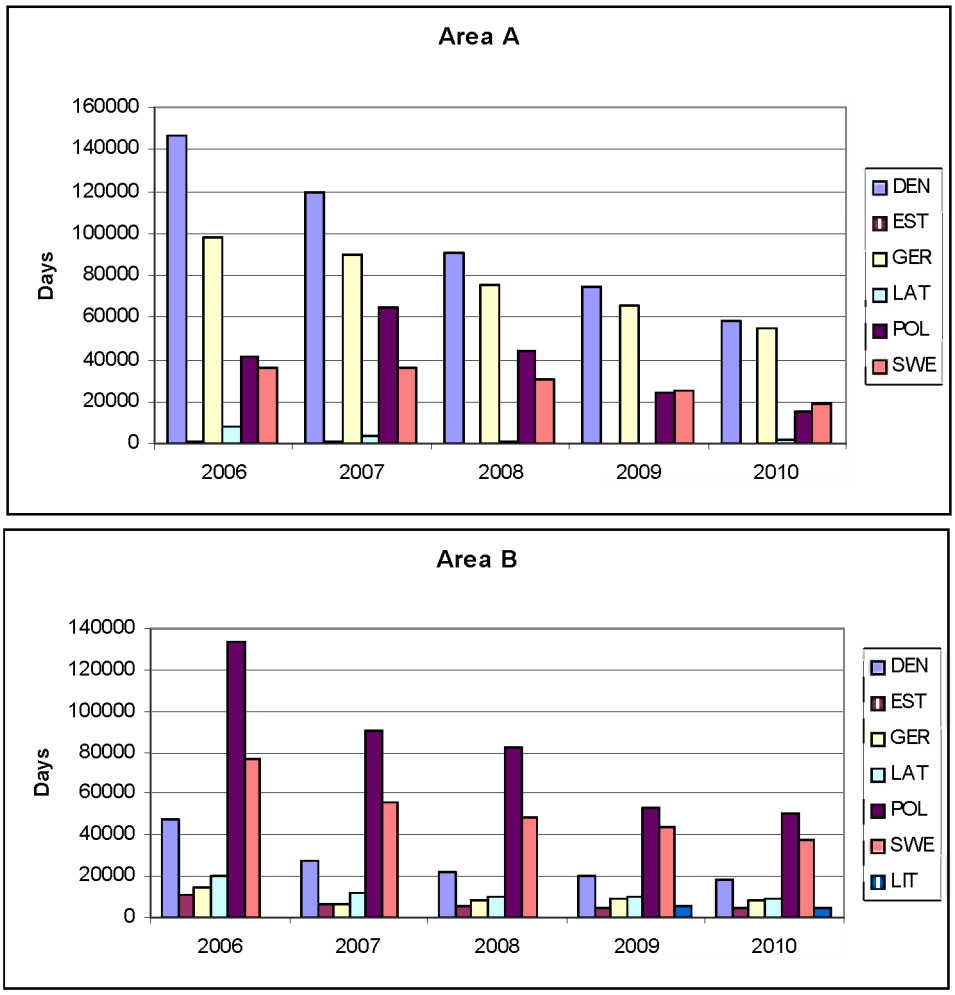

Figure 4.1. Total number of available days at sea by Member states in areas A and B in 2006-2010.

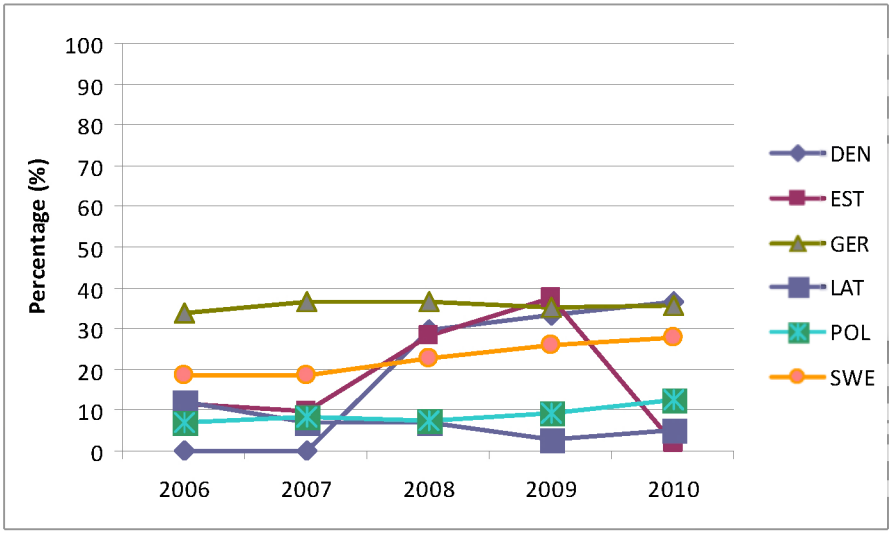

Figure 4.2. Fishing activity (%of available fishing days) in cod fishery with regulated gears in 2006-2010, Area A.

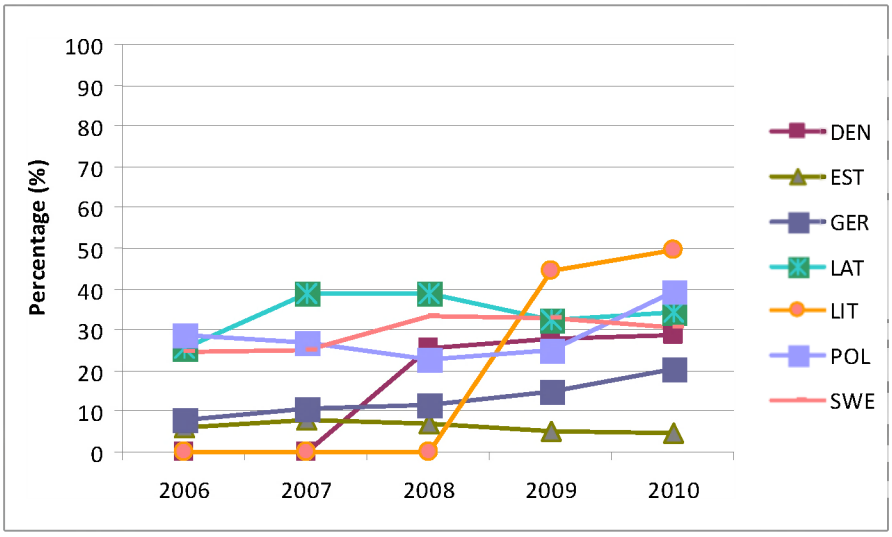

Figure 4.3. Fishing activity (% of available fishing days) in cod fishery with regulated gears in 2006-2010, Area B. Note: no data was available from DEN for 2006-2007.

5 F VERSUS EFFORT ANALYSIS

Relationships between F and effort deployed (for all regulated gears combined) are strong for both western Baltic cod and eastern Baltic cod. Results change to some extent depending on whether the analysis is based on F from ICES assessments or a STECF partial F assuming that effort data show the same bias as STECF catch estimates (i.e. without unallocated removals) compared to ICES catch estimates (i.e. with unallocated removals). The general conclusions, however, hold true for both types of analyses. The intersection of the regression line with the x-axis would imply a zero catch of eastern Baltic cod already below observed level (at around 5 million kW*days) This is a hint that the relationship is to some extent spurious and not only effort reductions are responsible for the drop in F during the last years. Also a better productivity of the stock and the TAC constraint of +/- 15% in the cod management plan were potentially responsible. (Figure 5.1).

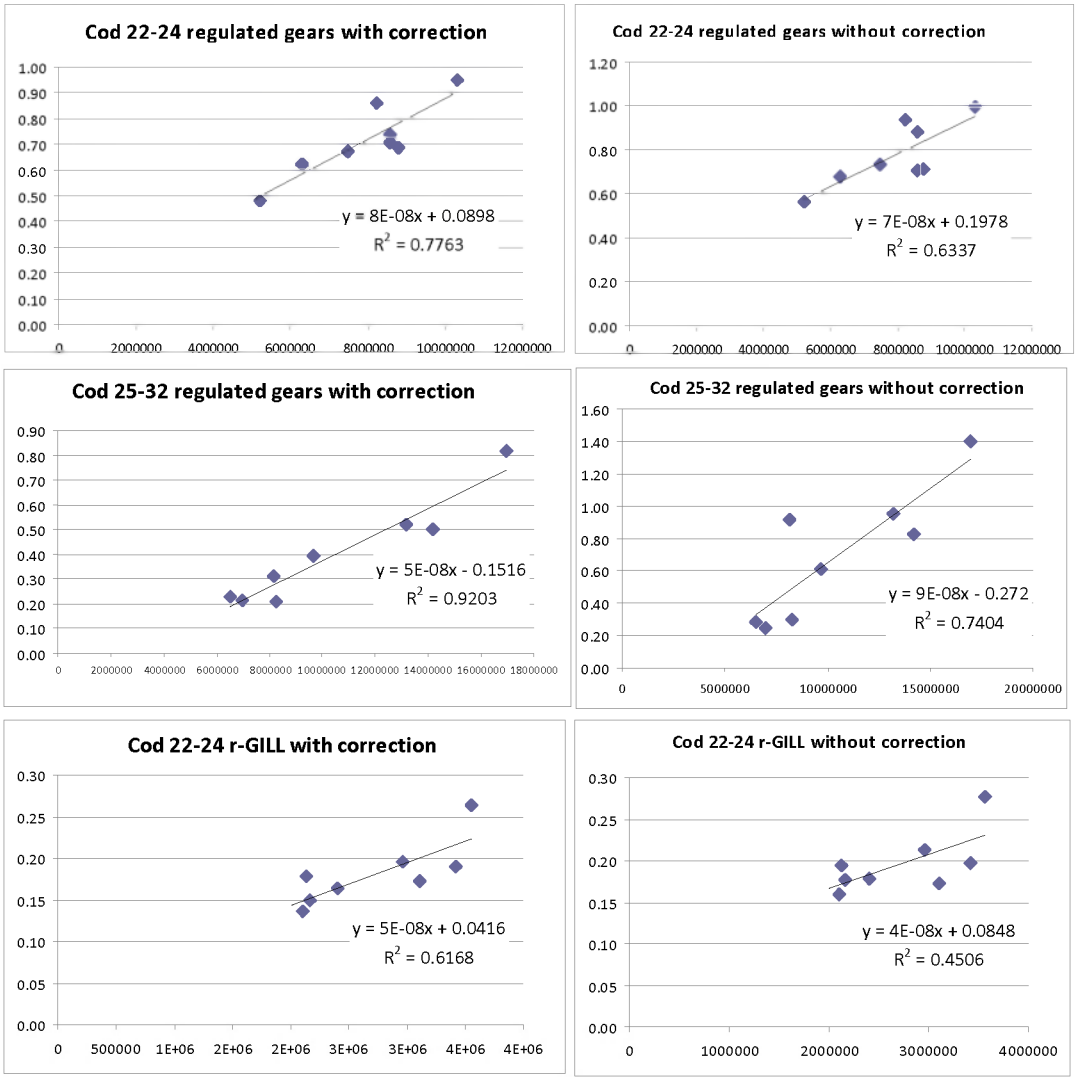

Figure 5.1. Results of F (vertical axis) versus effort analysis.

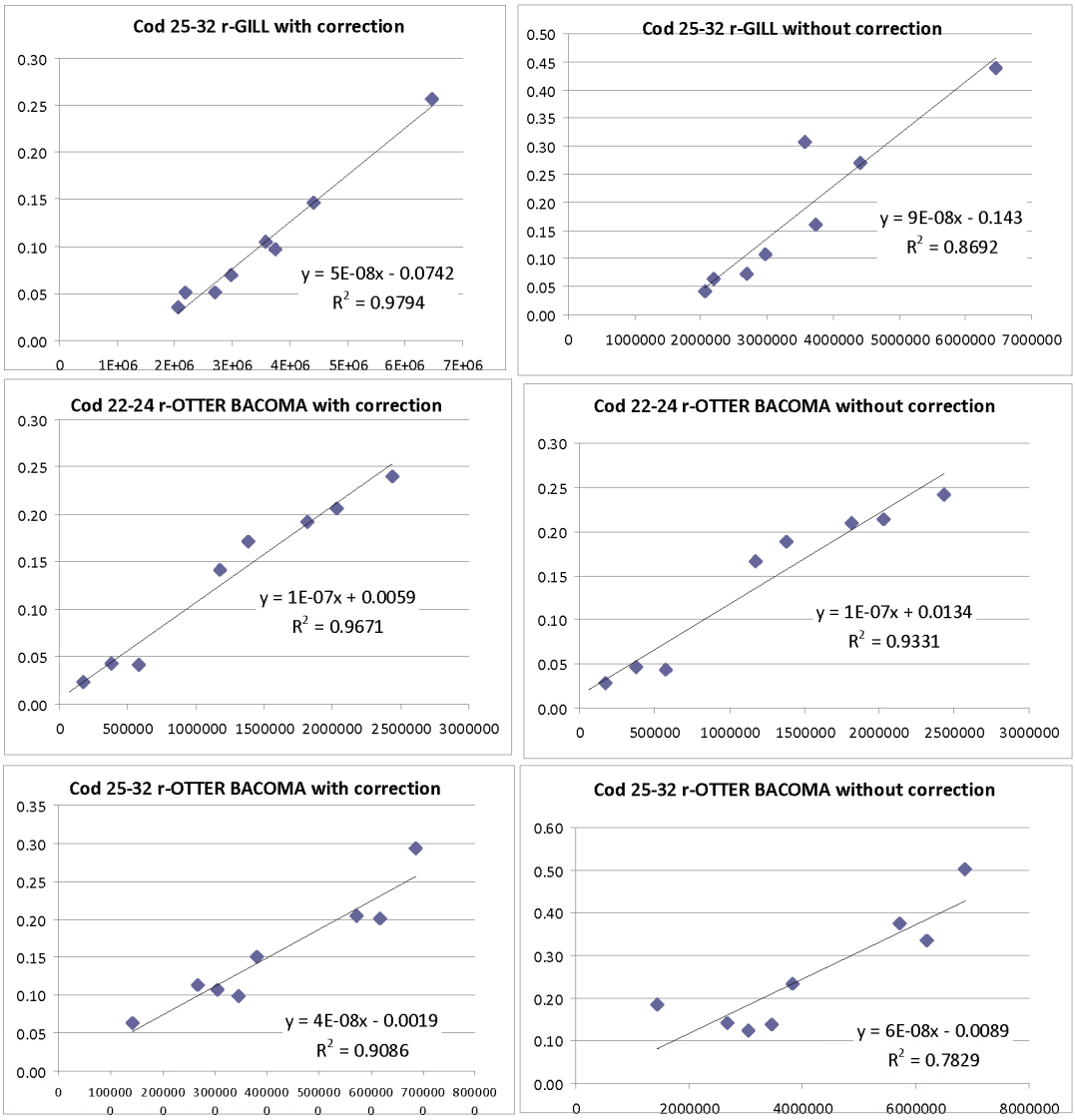

Figure 5.1. (continued)

ANNEX 1: DATA CALL FROM 23 FEBRUARY 2011.

Ref. Ares(2011)200418-23/02/2011

EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR MARITIME AFFAIRS AND FISHERIES

POLICY DEVELOPMENT AND CO-ORDINATION
COMMON FISHERIES POLICY AND AQUACULTURE

Brussels,
MARE A2/MT/dos D(2011)

FAX

To:	Permanent Representations of EU Member States	**Telephone:**	
		Fax:	
Cc:	Ministries of EU Member States		
From:	Ernesto PENAS LADO	**Telephone:**	(32-2) 296 37 44
		Fax:	(32-2) 299 48 02
Number of pages:	3+21		
Subject:	**Fishing effort management schemes related to recovery and management plans in the Baltic Sea, the North Sea, to the Western waters, to the deep sea fisheries and review of fisheries located in the Celtic Sea.**		

Message:

Following a similar approach as has been implemented for the last six years, the Commission will consult the STECF 'Working Group on fishing effort regime evaluations' on a review of fisheries regulated through fishing effort management schemes adopted in application of

- ✓ the long term plan for cod stocks [R(EC) No 1342/2008],
- ✓ the recovery plan for Southern hake and Norway lobster stocks in the Cantabrian Sea and Western Iberian peninsula [R(EC) No 2166/2005],
- ✓ the multi-annual plan for the North Sea plaice and sole stocks [R(EC) No 676/2007],
- ✓ the multi-annual plan of Western Channel sole stock [R(EC) No 509/2007],
- ✓ the multi-annual plan for the cod stocks in the Baltic Sea [R(EC) No 1098/2007],

- ✓ the multi-annual plan for the sustainable exploitation of the stock of sole in the Bay of Biscay [R(EC) No 388/2006],

- ✓ R(EC) No 2347/2002 establishing specific access requirements and associated conditions applicable to fishing for deep sea stocks, and

- ✓ R(EC) No 1954/2003 on the management of the fishing effort relating to certain Community fishing areas and resources – so called Western Waters regime..

The meetings of the STECF Working Group will take place from 06 to 10 June 2011 and from 26 to 30 September 2011. Similarly to last year, the Commission will consult the STECF Working Group on an analysis of fisheries located in the Celtic Sea which would be affected by a possible extension of effort management related to demersal stocks in that area.

These reviews and analysis will be based on data as collected according to R(EC) No 1639/2001 and to R(EC) No 199/2008 establishing a Community framework for the collection and management of the data needed to conduct the common fisheries policy, supplemented by Commission Decision 2010/93/EU of 18 December 2009 (which repealed Commission Decision 2008/949/EC), as well as other scientific information collected at national level which would allow Member States to fulfil their cooperation obligation laid down in article 4 (3) of the Treaty on European Union. They will include:

- ✓ A synopsis of the biological status of the relevant resources;

- ✓ Details of historic effort deployed by all fishing vessels, even those of less than 10 m. Loa included, in each fishery, segregated by gear type and by Member State, for the 2000-2010 time period;

- ✓ Details of historic catches (landings and discards) made by all fishing vessels , those of less than 10 m. Loa included, in each fishery, segregated by age, by gear type and by Member State, for the 2003-2010 time period.

These data should characterise landings and discards structured by age for the period 2003-2010 and effort for the period 2000-2010.

However, if a Member State considers that data already received by the JRC and handled by the STECF for the 2000-2009 or 2003-2009 time periods do not have to be updated, the Member State is invited to limit the answer to the data call to data for the year 2010. In case where the Member State had not or only partially submitted requested data for the period 2003-2009, the Member State will have to submit data covering the overall periods of time (2003-2010 for catches and 2000-2010 for effort). In addition, Member States will be requested to provide relevant information explaining the need for update and the discrepancies possibly observed between the set of data submitted as answer to the last call and the set of data to be sent as answer to the current call.

To enable the STECF Working Group on fishing effort regime evaluations both to review such fishing effort management schemes and to analyse the fishing effort deployed in the Celtic Sea fisheries, Member States are invited to provide, as soon as possible and no later than **06 May 2011**, data to the Commission and to the scientists who would attend the meeting.

The data format to be used, which has been discussed with the STECF secretariat, is described in annex II joined to this facsimile. Such completed data sets should be uploaded on the **JRC DCF data**

collection web site and put at the disposition of the STECF working groups by the intermediation of scientists who will form part of it.

Requests for complementary information related to this upload process may be requested to Hans-Joachim Raetz and to Marco Traa through the following e-mail boxes:

Marco.traa@ec.europa.eu

hans-joachim.raetz@jrc.ec.europa.eu

stecf-secretariat@jrc.ec.europa.eu

Please note that STECF has repeatedly highlighted shortfalls in the data submitted by a number of Member States. Annex I shows a summary table of data not submitted by MS following the data call on effort and catches in 2010. These shortfalls continue to compromise the analysis and member States are asked to pay special attention to providing missing data.

In addition, STECF highlighted several times that it had been unable to comment on the quality of the fleet specific estimates of total catches and discards, mainly due to lack of requested data quality parameters, i.e. number of discards samples, fish measured and aged.

The Commission requests Member States to provide all available information on number of discards samples, fish measured and aged which were implemented during the time-series beforehand specified and either for each metier or for each stock covered by the current call for data. It is recommended that MS authorities liaise with their experts who are expected to attend the STECF meetings to ensure this task is fulfilled.

The Commission reminds Member States that according to Article 8(4) and 8(5) of Regulation (EC) No 199/2008, **reductions and suspensions of European Union financial assistance may be applied by the Commission in case of lack of data transmission by the Member States to regional RFMO and scientific bodies**. Therefore the Member States are encouraged to respect the above mentioned deadline and to provide all requested data.

Member States shall take note of the new Data Validation Tool (provided by DG-JRC and downloadable from the respective website) and are encourage to try it out in order to support the data submissions and enhance the data quality.

Ernesto PENAS LADO
Director

Annex I.

Summary table of data not submitted by MS following the SG MOS data call on effort and catches 2010

Note 1: The data call concerned catch data by metier and ICES division disaggregated by age and length; nominal effort data by metier and ICES division; and effective fishing time by metier and statistical rectangle.

Note 2: the list does not concern the quality of data submitted, but only non-submission

Note 3: the data call 2010 only asked mandatorily for data concerning the year 2009, to be collected under the new DCF.

Member State	DCF data missing still at the STECF November Plenary (before finalisation of the SG MOS working group report)	DCF data missing by end of May 2010 (expiry of the data submission deadline)
Sweden		
Finland	Catch and nominal effort data not disaggregated by area, gear, quarter No fish lengths and age No data on effective fishing time	Catch and nominal effort data not disaggregated by area, gear, quarter No fish lengths and age No data on effective fishing time
Estonia	No catch and discard data on 120 (out of 122) species No discard data No fish lengths and age No vessels u8m and no o10t12m	No catch and discard data on 120 (out of 122) species No discard data No fish lengths and age No vessels u8m and no o10t12m
Latvia	No vessels u8m and no o10t12m	No vessels u8m and no o10t12m
Lithuania	No data for vessels below 12m No catch and discard data for 121 (out of 122) species	No data for vessels below 12m No catch and discard data for 121 (out of 122) species No data on nominal effort No data on effective fishing time
Poland	No catch and discard data for 121 (out of 122) species	No catch and discard data for 121 (out of 122) species No data on effective fishing time
Germany		
Denmark		
Netherlands	No discard data for 119 (out of 122) species	No discard data for 119 (out of 122) species
Belgium	No discard data for one metier	No data at all (see note 1)
United Kingdom		No data for England and Wales
France	No discard data.	No data at all (see note 1)
Ireland		

Spain	No data on vessel lengths No data (catches, effort and effective fishing time) for the non-coastal fleets, i.e. for areas outside ICES divisions VIIIc and IXa	No data on vessel lengths No data (catches, effort and effective fishing time) for the non-coastal fleets, i.e. for areas outside ICES divisions VIIIc and IXa No data (catches, effort and effective fishing time) on deep sea metier No data on effective fishing time
Portugal	No discard data for 121 species (out of 122), no fish lengths and age data	No discard data for 121 species (out of 122), no fish lengths and age data

Annex II.

Format adapted from the latest fleet specific fishing effort and catch data call issued by the European Commission, DG Mare.

Data reports can be provided in simple comma separated text files, Microsoft EXCEL or ACCESS formats. All missing values (empty data cells) must be indicated by a -1.

In contrast to last year's data formats, which were sequential, you are kindly requested to stick this year to a simple table format which makes im- and exporting much more easily.

A. Catch data for 2010 (and the 2003-2009 time period if appropriate – see cover letter), aggregated (sum) by ID except for mean weight and length in landings and discards at age (arithmetic mean). Please ensure that data entries are fully consistent with coding given in Appendixes.

1. ID (this is a unique identifier; e.g. the combination of country, year, quarter, gear, mesh size range, fishery or metier, and area; this is free text with a maximum of 40 characters without space)
2. COUNTRY (this should be given according to the code list provided in Appendix 1)
3. YEAR (this should be given in four digits), like 2004
4. QUARTER (this should be given as one digit), like 1, 2, 3, or 4
5. VESSEL_LENGTH (vessel length should be given according to the code list provided in Appendix 2)
6. GEAR (gear should be given according to the code list provided in Appendix 3, which follows the EU data regulation 1639/2001)
7. MESH_SIZE_RANGE (the mesh size range should be given according to the code list provided in Appendix 4, which largely follows the Council regulation 850/98)
8. FISHERY (species complex and gear) or métier (species complex, gear and vessel characteristics) (this is free text with a maximum of 40 characters without space; this specification may include e.g. target species, roundfish area or quarter) (a fishery can encompass, e.g. more than one mesh size range; in this case separate records have to be provided, e.g. one for each mesh size range, with the same fishery identification)
9. AREA (the ICES division or sub-area should be given according to the code list provided in Appendix 5
10. SPECON to be specified in accordance with Appendix 6, if SPECON is not available or not applicable, "-1" should be given. All landings, discards and other biological parameters falling under the Deep Sea regulations should be aggregated separately, indicated with SPECON=DEEP and appended to the data base. This will allow separate analyses of Deep Sea effort, without conflicts with other effort management schemes.
11. SPECIES (the species should be given according to the code list provided in Appendix 7, which follows the Council Regulation EC 2287/2003)
12. LANDINGS (estimated landings in tonnes should be given; if age based information is present, this quantity should correspond to the sum of products)
13. DISCARDS (estimated discards in tonnes should be given; if age based information is present, this quantity should correspond to the sum of products)
14. NO_SAMPLES_LANDINGS (the number of TRIPS should be given that relate to landings only; a number should be given only if it relates to this fishery only; otherwise "–1" should be given)
15. NO_LENGTH_MEASUREMENTS_LANDINGS (the number of length measurements should be given that relate to landings only; a number should be given only if it relates to this fishery only; otherwise "–1" should be given)
16. NO_AGE_MEASUREMENTS_LANDINGS (the number of age measurements should be given that relate to landings only; a number should be given only if it relates to this fishery only; otherwise "–1" should be given)
17. NO_SAMPLES_DISCARDS (the number of TRIPS should be given that relate to discards only; a number should be given only if it relates to this fishery only; otherwise "–1" should be given)
18. NO_LENGTH_MEASUREMENTS_DISCARDS (the number of length measurements should be given that relate to discards only; a number should be given only if it relates to this fishery only; otherwise "–1" should be given)
19. NO_AGE_MEASUREMENTS_DISCARDS (the number of age measurements should be given that relate to discards only; a number should be given only if it relates to this fishery only; otherwise "–1" should be given)

20. NO_SAMPLES_CATCH (the number of TRIPS should be given that relate to catches only; a number should be given only if it relates to this fishery only; otherwise "–1" should be given)
21. NO_LENGTH_MEASUREMENTS_CATCH (a number of length measurements should be given here if it relates to catch, i.e. landings and discards; a number should be given only if it relates to this fishery only; otherwise "–1" should be given)
22. NO_AGE_MEASUREMENTS_CATCH (a number of age measurements should be given here if it relates to catch, i.e. landings and discards; a number should be given only if it relates to this fishery only; otherwise "–1" should be given)
23. MIN_AGE (this is the minimum age in the data section; if minimum age and maximum age are both "–1", no age based data are given; otherwise age data must follow in the data section for each age in the age range MIN_AGE to MAX_AGE; minimum age and maximum age must either both be "-1" or both be not "-1")
24. MAX_AGE (this is the true maximum age in the data section (no plus group is allowed); if minimum age and maximum age are both "–1", no age based data are given; otherwise age data must follow in the data section for each age in the age range MIN_AGE to MAX_AGE; minimum age and maximum age must either both be "-1" or both be not "-1")
25. Age 0 (years)=0
26. Age 0 No. Landed (thousands)
27. Age 0 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
28. Age 0 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
29. Age 0 No. Discard (thousands)
30. Age 0 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
31. Age 0 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
32. Age 1 (years)=1
33. Age 1 No. Landed (thousands)
34. Age 1 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
35. Age 1 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
36. Age 1 No. Discard (thousands)
37. Age 1 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
38. Age 1 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
39. Age 2 (years)=2
40. Age 2 No. Landed (thousands)
41. Age 2 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
42. Age 2 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
43. Age 2 No. Discard (thousands)
44. Age 2 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
45. Age 2 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
46. Age 3 (years)=3
47. Age 3 No. Landed (thousands)
48. Age 3 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
49. Age 3 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
50. Age 3 No. Discard (thousands)
51. Age 3 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
52. Age 3 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
53. Age 4 (years)=4
54. Age 4 No. Landed (thousands)
55. Age 4 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
56. Age 4 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
57. Age 4 No. Discard (thousands)
58. Age 4 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
59. Age 4 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
60. Age 5 (years)=5
61. Age 5 No. Landed (thousands)
62. Age 5 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
63. Age 5 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
64. Age 5 No. Discard (thousands)
65. Age 5 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
66. Age 5 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
67. Age 6 (years)=6
68. Age 6 No. Landed (thousands)
69. Age 6 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)

70. Age 6 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
71. Age 6 No. Discard (thousands)
72. Age 6 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
73. Age 6 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
74. Age 7 (years)=7
75. Age 7 No. Landed (thousands)
76. Age 7 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
77. Age 7 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
78. Age 7 No. Discard (thousands)
79. Age 7 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
80. Age 7 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
81. Age 8 (years)=8
82. Age 8 No. Landed (thousands)
83. Age 8 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
84. Age 8 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
85. Age 8 No. Discard (thousands)
86. Age 8 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
87. Age 8 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
88. Age 9 (years)=9
89. Age 9 No. Landed (thousands)
90. Age 9 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
91. Age 9 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
92. Age 9 No. Discard (thousands)
93. Age 9 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
94. Age 9 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
95. Age 10 (years)=10
96. Age 10 No. Landed (thousands)
97. Age 10 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
98. Age 10 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
99. Age 10 No. Discard (thousands)
100. Age 10 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
101. Age 10 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
102. Age 11 (years)=11
103. Age 11 No. Landed (thousands)
104. Age 11 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
105. Age 11 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
106. Age 11 No. Discard (thousands)
107. Age 11 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
108. Age 11 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
109. Age 12 (years)=12
110. Age 12 No. Landed (thousands)
111. Age 12 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
112. Age 12 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
113. Age 12 No. Discard (thousands)
114. Age 12 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
115. Age 12 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
116. Age 13 (years)=13
117. Age 13 No. Landed (thousands)
118. Age 13 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
119. Age 13 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
120. Age 13 No. Discard (thousands)
121. Age 13 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
122. Age 13 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
123. Age 14 (years)=14
124. Age 14 No. Landed (thousands)
125. Age 14 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
126. Age 14 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
127. Age 14 No. Discard (thousands)
128. Age 14 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
129. Age 14 MEAN Length Discard (cm, precision in mm=1 digits after the comma)

130. Age 15 (years)=15
131. Age 15 No. Landed (thousands)
132. Age 15 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
133. Age 15 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
134. Age 15 No. Discard (thousands)
135. Age 15 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
136. Age 15 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
137. Age 16 (years)=16
138. Age 16 No. Landed (thousands)
139. Age 16 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
140. Age 16 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
141. Age 16 No. Discard (thousands)
142. Age 16 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
143. Age 16 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
144. Age 17 (years)=17
145. Age 17 No. Landed (thousands)
146. Age 17 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
147. Age 17 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
148. Age 17 No. Discard (thousands)
149. Age 17 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
150. Age 17 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
151. Age 18 (years)=18
152. Age 18 No. Landed (thousands)
153. Age 18 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
154. Age 18 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
155. Age 18 No. Discard (thousands)
156. Age 18 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
157. Age 18 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
158. Age 19 (years)=19
159. Age 19 No. Landed (thousands)
160. Age 19 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
161. Age 19 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
162. Age 19 No. Discard (thousands)
163. Age 19 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
164. Age 19 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
165. Age 20 (years)=20
166. Age 20 No. Landed (thousands)
167. Age 20 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
168. Age 20 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
169. Age 20 No. Discard (thousands)
170. Age 20 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
171. Age 20 MEAN Length Discard (cm, precision in mm=1 digits after the comma)

B. Effort data for 2010 (and the 2000-2009 time period if appropriate – see cover letter), aggregated (sum) by ID

1. ID (this is a unique identifier; e.g. the combination of country, year, quarter, gear, mesh size range, fishery or metier, and area; this is free text with a maximum of 40 characters without space)
2. COUNTRY (this should be given according to the code list provided in Appendix 1)
3. YEAR (this should be given in four digits)
4. QUARTER (this should be given as one digit)
5. VESSEL_LENGTH (vessel length should be given according to the code list provided in Appendix 2)
6. GEAR (this identifies gear, and should be given according to the code list provided in Appendix 3, which follows largely the EU data regulation 1639/2001)
7. MESH_SIZE_RANGE (the mesh size range should be given according to the code list provided in Appendix 4, which follows largely the Council regulation 850/98)
8. FISHERY (species complex and gear) or métier (species complex, gear and vessel characteristics) (this is free text with a maximum of 40 characters without space; this specification may include e.g. target species, roundfish area or quarter)

9. AREA (the ICES division or sub-area should be given according to the code list provided in Appendix 5)
10. SPECON to be specified in accordance with Appendix 6, if SPECON is not available or not applicable, "-1" should be given. All landings , discards and other biological parameters falling under the Deep Sea regulations should be aggregated separately, indicated with SPECON=DEEP and appended to the data base. This will allow separate analyses of Deep Sea effort, without conflicts with other effort management schemes.
11. FISHING_ACTIVITY (mandatory only for effort belonging to the Baltic Sea cod plan, the Western Channel sole plan, and the Southern hake and *Nephrops* plan, for other plans – e.g. North Sea sole and plaice plan – or parameters this filed is optional; the nominal fishing activity should be given in days at sea – or days absent from port in the specific case of the Baltic Sea cod plan; if nominal fishing activity is not available, "-1" should be given).
12. FISHING_CAPACITY (mandatory for effort belonging to the sole in the Bay of Biscay plan and the North Sea sole and plaice plan, for other plans or parameters this filed is optional; the nominal fishing capacity should be given in gross tonnage, except for the North Sea sole and plaice plan where the fishing capacity will have to be expressed in kW; if nominal fishing capacity is not available, "-1" should be given)
13. NOMINAL_EFFORT (effort should be given in kW.days, i.e. engine power in kW times days at sea; if nominal effort is not available, "-1" should be given)
14. GT_DAYS_AT_SEA (effort should be given in gross tonnage * days at sea; if the number is not available, "-1" should be given).
15. NO_VESSELS (not for Baltic Sea cod plan), simple integer value of vessels, if the number is not available, "-1" should be given.

C. Specific effort data by rectangle for 2010 (and the 2003-2009 time period if appropriate – see cover letter), in units of fishing hours

1. ID (this is a unique identifier; e.g. the combination of country, year, quarter, gear, mesh size range, fishery or metier, and area; this is free text with a maximum of 40 characters without space)
2. COUNTRY (this should be given according to the code list provided in Appendix 1)
3. YEAR (this should be given in four digits)
4. QUARTER (this should be given as one digit)
5. VESSEL_LENGTH (vessel length should be given according to the code list provided in Appendix 2)
6. GEAR (this identifies gear, and should be given according to the code list provided in Appendix 3, which follows largely the EU data regulation 1639/2001).
7. MESH_SIZE_RANGE (the mesh size range should be given according to the code list provided in Appendix 4, which follows largely the Council regulation 850/98)
8. FISHERY (species complex and gear) or métier (species complex, gear and vessel characteristics) (this is free text with a maximum of 40 characters without space; this specification may include e.g. target species, roundfish area or quarter)
9. AREA (the ICES division or sub-area should be given according to the code list provided in Appendix 5).
10. SPECON to be specified in accordance with Appendix 6, if SPECON is not available or not applicable, "-1" should be given. All landings , discards and other biological parameters falling under the Deep Sea regulations should be aggregated separately, indicated with SPECON=DEEP and appended to the data base. This will allow separate analyses of Deep Sea effort, without conflicts with other effort management schemes.
11. RECTANGLE (text, 4 letters like 44F6)
12. EFFECTIVE_EFFORT (hours fished, simple long numerical integer)

D. Fisheries capacity data of active fishing vessels in the Baltic Sea for the 2003-2010 time period, fully aggregated (counts or sums as defined). Please ensure that data entries are fully consistent with coding given in Appendixes. Note the different time, area and gear aggregations defined in this table D as compared with table B definitions.

16. COUNTRY (this should be given according to the code list provided in Appendix 1)
17. YEAR (this should be given in four digits)
18. VESSEL_LENGTH (vessel length should be given according to the code list provided in Appendix 2)

19. GEAR (use the code "REGGEAR" and aggregate all regulated gears[1] as defined in **COUNCIL REGULATION (EC) No 1098/2007** in case such regulated gear was used once or repeatedly, use the code "NONGEAR" and aggregate all other gears in case regulated gears were never used).
20. AREA (in accordance with definitions of **COUNCIL REGULATION (EC) No 1098/2007** use the code "A" for the vessels which have operated exclusively in ICES subdivisions 22-24, use the code "B" for the vessels which have operated exclusively in ICES subdivisions 25- 28, use the code "AB" for the vessels which have operated in both ICES subdivisions 22-24 and 25-28).
21. NO_VESSELS (simple integer value of vessel counts, if the number is not available, "-1" should be given.
22. FISHING_CAPACITY_kW (to be summed in units of kW; if fishing capacity is not available, "-1" should be given)
23. FISHING_CAPACITY_GT (to be summed in units of gross tonnage; if fishing capacity is not available, "-1" should be given)

[1]) regulated gears coded "REGGEAR" comprise fishing with trawls, Danish seines or similar gear (Appendix 3: OTTER, DEM_SEINE, PEL_TRAWL, PEL_SEINE) of a mesh size equal to or larger than 90 mm, with gillnets (Appendix 3: GILL), entangling nets or trammel nets (Appendix 3: TRAMMEL) of a mesh size equal to or larger than 90 mm, with bottom set lines, longlines except drifting lines, handlines and jigging (Appendix 3: LONGLINE).

Appendix 1

Country coding

COUNTRY	CODE
Belgium	BEL
Denmark	DEN
Estonia	EST
Finland	FIN
France	FRA
Germany	GER
Ireland	IRL
Latvia	LAT
Lithuania	LIT
Netherlands	NED
Poland	POL
Portugal (mainland)	POR
Portugal (Azores)	PTA
Portugal (Madeira)	PTM
Spain (mainland)	SPN
Spain (Canaries islands)	SPC
Sweden	SWE
United Kingdom (Jersey)	GBJ
United Kingdom (Guernsey)	GBG
United Kingdom (Alderny/Sark/Herm)	GBC
United Kingdom (England and Wales)	ENG
United Kingdom (Isle of Man)	IOM
United Kingdom (Northern Ireland)	NIR
United Kingdom (Scotland)	SCO

Appendix 2

Vessel length coding

According to the Data Collection Framework, Member States should be able to provide data characterising fisheries located in the Baltic Sea, the North Sea and the Western Waters and covering the year 2010 on the basis of the following segmentation of the fleet:

Length over all shorter than 10 m.

Length over all of 10 m. to shorter than 12 m.

Length over all of 12 m. to shorter than 18 m.

Length over all of 18 m. to shorter than 24 m.

Length over all of 24 m. to shorter than 40 m

Length over all of 40 m. or longer

However, to ensure consistency with the 2000-2009 or 2003-2009 time series already submitted last year and to ensure compliance with provisions adopted in legal texts supporting fishing effort regimes in the Baltic Sea, North Sea and Western Waters, Member States are requested to submit data according to the following segmentation:

Fishing efforts regimes of the Kattegat, Skagerrak, North Sea and the Western Waters

Vessel length over all classes	**Code**
Length over all shorter than 10 m.	u10m
Length over all of 10 m. to shorter than 15 m.	o10t15m
Length over all of 15 m. and over	o15m

Fishing efforts regimes of the Baltic Sea

Vessel length over all classes	**Code**
Length over all shorter than 8 m.	u8m
Length over all of 8 m. to shorter than 10 m.	o8t10m
Length over all of 10 m. to shorter than 12 m.	o10t12m
Length over all of 12 m. to shorter than 18 m.	o12t18m
Length over all of 18 m. to shorter than 24 m.	o18t24m
Length over all of 24 m. to shorter than 40 m	o24t40m
Length over all of 40 m. or longer	o40m

Appendix 3

Gear coding

TYPES OF FISHING TECHNIQUES			Gear code to be used when answering the data call	Gear code specified for métiers in App. IV of 2008//949/CE
Mobile gears	Beam trawls		BEAM	TBB
	Bottom trawls & demersal seines	Bottom otter trawls, Multi-rig otter trawls or Bottom pair trawls	OTTER	OTB, OTT, PTB
		Fly shooting seines, Anchored seines or Pair seines	DEM_SEINE	SSC, SDN, SPR
	Pelagic trawls & pelagic Seines	Midwater otter trawls or Midwater pair trawls	PEL_TRAWL	OTM, PTM
		Purse seines, Fly shooting seines or Anchored seines	PEL_SEINE	PS
	Dredges		DREDGE	DRB, HMD
Passive gears	Drifting longlines or Set longlines		LONGLINE	LHP, LHM, LTL, LLD, LLS
	Driftnets or Set gillnets (*except Trammel Nets*)		GILL	GNS, GND
	Trammel Nets		TRAMMEL	GTR
	Pots & traps		POTS	FPO

Appendix 4

Mesh size coding

Mesh sizes (and selective devices) to be taken into account when evaluating catches and effort made in relation to metiers described in Appendix IV of the Commission Decision update decision no should be as follows:

- in relation to R(EC) No 88/98 and R(EC) No 2187/2005 for metiers observed in the Baltic Sea;
- in relation to R(EEC) No 1888/85, R(EEC) No 1638/87, R(EC) No 850/98, R(EC) No 2056/2001, R(EC) No 494/2002 for metiers observed in the North Sea and Western Atlantic;
- in relation to R(EC) No 850/98, R(EC) No 2549/2000, R(EC) No 2056/2001, R(EC) No 494/2002, R(EC) No 1386/2007 for metiers observed in the Northern Atlantic.

Nevertheless, to ease the process of submission of data linked to the current call, the Commission would suggest following the mesh size ranges specified in the table below:

Gear type	Mesh size range
Mobile gears	<16
	16-31
	32-54
	55-69
	70-79
	80-89
	90-99
	100-119
	>=105[1]
	>=120
Passive gears	10-30
	31-49
	50-59
	60-69
	70-79
	80-89
	90-99
	100-109
	110-149
	110-156[2]
	150-219
	157-219[2]
	>=220

[1] To be used for mobile gears in the context the fishing effort management scheme applied in the Baltic Sea
[2] To be used for passive gears in the context the fishing effort management scheme applied in the Baltic Sea

Appendix 5

Area coding by WG, ICES statistical areas and IBSFC areas for Baltic

Baltic Sea

IBSFC areas for Baltic	*Codes in bold to be used in relation compulsory provisions of the Comm Decision 2008/949/EC*	*Codes to be used in relation to the g agreement reached between the DG and the Member States about the ev of the fishing effort regimes*
III.c.22	**22**	
III.c.23	**23**	
III.c.24	**24**	
III.c.25	**25**	
III.c.26	**26**	
III.c.27	**27**	
III.c.28	**28**[3]	
III.c.28.2		**28.2**
III.d.29	**29**	
III.d.30	**30**	
III.d.31	**31**	
III.d.32	**32**	

North Sea, Skagerrak, Kattegat and Eastern Channel

ICES statistical areas	*Codes in bold to be used in relation compulsory provisions of the Comm Decision 2008/949/EC*	*Codes to be used in relation to the g agreement reached between the DG and the Member States about the ev of the fishing effort regimes*
II EU waters	(2)	**2 EU**
III.a.N	(3a)	**3an**
III.a.S		**3as**
IV	**4**	
VII.d	**7d**	

[3] Area 28.2 included.

Northern Shelf

ICES statistical areas	*Codes in bold to be used in relation compulsory provisions of the Comm Decision 2008/949/EC*	*Codes to be used in relation to the g agreement reached between the DG and the Member States about the ev of the fishing effort regimes*
I	(1)	**1 COAST**[7]
		1 RFMO[8]
II non EU waters	(2)	**2 COAST**
		2 RFMO
V.a	**5a**	
V.b EU waters	(5b)	**5b EU**[9]
V.b non EU waters		**5b COAST**
		5b RFMO
VI.a	**6a**	
VI.b EU waters	(6b)	**6b EU**
VI.b non EU waters		**6b RFMO**
VII.a	**7a**	
VII Biological Sensitive Area		**BSA**[10]
VII.b	**7b**[4]	
VII.c EC Waters	(7c)	**7c EU**
		7c RFMO
VII.e	**7e**	
VII.f	**7f**	
VII.g	**7g**[5]	
VII.h	**7h**[6]	

[4] ICES statistical rectangles of ICES division VIIb and corresponding to the BSA shall be included.
[5] ICES statistical rectangles of ICES division VIIg and corresponding to the BSA shall be included.
[6] ICES statistical rectangles of ICES division VIIh and corresponding to the BSA shall be included.
[7] COAST will refer to waters under jurisdiction of a non-EU coastal state.
[8] RFMO will refer to waters where fisheries are managed through RFMOs.
[9] 5b EU will have to be considered as covering the following ICES statistical rectangles: 49D6, 49D7, 49D8, 49D9, 49E0, 49E1, 49E2, 49E3, 49E4, 50E5.
[10] BSA (Biological Sensitive Area) will have to be considered as covering the following ICES statistical rectangles: 35D8, 35D9, 35E0, 35E1, 34D8, 34D9, 34E0, 34E1, 33D8, 33D9, 33E0, 33E2, 32D8, 32D9, 32E0, 32E1, 32E2, 31D8, 31D9, 31E0, 31E1, 31E2, 30D9, 30E0, 30E1, 30E2, 29D9, 29E0, 29E1, 29E2, 28D9, 28E0, 28E1, 28E2.

VII.j EU waters	(7j)	**7j EU**[11]
VII.j non EU waters		**7j RFMO**
VII.k EU waters	(7k)	**7k EU**
VII.k non EU waters		**7k RFMO**
XII	**12**	
XIV.a	**14a**	**14a**
XIV.b	(14b)	**14b COAST**
		14b RFMO

Southern Shelf

ICES statistical areas	***Codes in bold to be used in relation compulsory provisions of the Comm Decision 2008/949/EC***	***Codes to be used in relation to the g agreement reached between the DG and the Member States about the ev of the fishing effort regimes***
VIII.a	**8a**	
VIII.b	**8b**	
VIII.c	**8c**	
VIII.d EU waters	(8d)	**8d EU**
VIII.d non EU waters		**8d RFMO**
VIII.e EU waters	(8e)	**8e EU**
VIII.e non EU waters		**8e RFMO**
IX.a	**9a**	
IX.b EU waters	(9b)	**9b EU**
IX.b non EU waters		**9b RFMO**
X EU waters	(10)	**10 EU**
X non EU waters		**10 RFMO**

[11] ICES statistical rectangles of ICES division VIIj and corresponding to the BSA shall be included.

CECAF

FAO statistical areas	*Codes to be used in relation to the compulsory provisions of the Comm Decision 2008/949/EC*	*Codes to be used in relation to the g agreement reached between the DG and the Member States about the ev of the fishing effort regimes*
34.1.1 EU waters		**34.1.1 EU**
34.1.1 non EU waters		**34.1.1 COAST**
34.1.2 EU waters		**34.1.2 EU**
34.1.2 non EU waters		**34.1.2 COAST**
		34.1.2 RFMO
34.1.3		**34.1.3 COAST**
		34.1.3 RFMO
34.2.0 EU waters		**34.2.0 EU**
34.2.0 non EU waters		**34.2.0 COAST**
		34.2.0 RFMO

Appendix 6

Coding of specific conditions related to the Cod Plan, to Annex IIB of R(EC) No 53/2010, to Deep Sea regulations, to Sole Bay of Biscay R(EC) No 388/2006, to fully documented fisheries and of Baltic Technical conditions in Council Regulation (EC) No 2187/2005

Specific conditions associated to fishing effort regimes

Condition	Code
Cod Plan R(EU) No 53/2010	
Effort deployed by those vessels granted the <1.5% derogation excluding them from the effort regime	CPart11
effort deployed by vessels operating in MS schemes under Article 13	CPart13
Annex IIB of R(EU) No 53/2010	
Less than 5 tons of hake and 2,5 tons of *Nephrops* in the catches	IIB72ab
Baltic Technical Conditions	
Gear equipped with a BACOMA	BACOMA
Gear equipped with a T90	T90
Effort Regime in Deep Sea fisheries	
Deep-water species	DEEP[12]
Sole Bay of Biscay R(EC) No 388/2006	
Special fishing permit (>2 tons of sole/A)	SBcIIIart5
Fully documented fisheries R(EU) No 53/2010	
Catch and effort data for 2010 for vessels participating in trials on fully documented fisheries in the annex IIA areas (art 2 R(EU) no 53/2010)	FDFIIA
Catch and effort data for 2010 for vessels participating in trials on fully documented fisheries in the Baltic Sea (art 38 R(EU) no 53/2010)	FDFBAL

[12] Where the deep-sea species related effort is not identified by an métier-sampling exclusively for deep sea species under DCF, the effort should be identified as follows:

(1) the gear is exclusively used in deep-sea fisheries;

(2) catch of Deep Sea species retained >100kg (as per the Regulation), or

(3) catch of Deep Sea species retained <100kg but the percentage of Deep Sea species >=35%..

Appendix 7

Species coding according to Council Regulation (EC) No. 2298/2003

Common name	Alpha-3 code	Scientific name
1. Albacore	ALB	*Thunnus alalunga*
2. Alfonsinos	ALF	*Beryx spp.*
3. American plaice	PLA	*Hippoglossoides platessoides*
4. Anchovy	ANE	*Engraulis encrasicolus*
5. Anglerfish	ANF	*Lophiidae*
6. Antarctic icefish	ANI	*Champsocephalus gunnari*
7. Arctic skate	RJG	*Raja hyperborea*
8. Atlantic catfish	CAT	*Anarhichas lupus*
9. Atlantic halibut	HAL	*Hippoglossus hippoglossus*
10. Atlantic salmon	SAL	*Salmo salar*
11. Atlantic thornyhead	TJX	*Trachyscorpia cristulata*
12. Baird's slickhead	ALC	*Alepocephalus bairdii*
13. Basking shark	BSK	*Cetorhinus maximus*
14. Bigeye tuna	BET	*Thunnus obesus*
15. Birdbeak dogfish	DCA	*Deania calcea*
16. Blackbelly rosefish	BRF	*Helicolenus dactylopterus*
17. Black cardinal fish	EPI	*Epigonus telescopus*
18. Black dogfish	CFB	*Centroscyllium fabricii*
19. Black scabbardfish	BSF	*Aphanopus carbo*
20. Blackfin icefish	SSI	*Chaenocephalus aceratus*
21. Blackmouth catshark	SHO	*Galeus melastomus*
22. Blue antimora	ANT	*Antimora rostrata*
23. Blue ling	BLI	*Molva dypterigia*
24. Blue marlin	BUM	*Makaira nigricans*
25. Blue whiting	WHB	*Micromesistius poutassou*
26. Bluefin tuna	BFT	*Thunnus thynnus*
27. Blutnose sixgill shark	SBL	*Hexanchus griseus*
28. Capelin	CAP	*Mallotus villosus*
29. Cod	COD	*Gadus morhua*
30. Common mora	RIB	*Mora moro*

31. Common sole	SOL	*Solea solea*
32. Common shrimp	CSH	*Crangon crangon*
33. Crab	PAI	*Paralomis spp.*
34. Dab	DAB	*Limanda limanda*
35. Deep-sea red crab	KEF	*Chaceon affinis*
36. Edible Crab	CRE	*Cancer pagurus*
37. Eelpouts	ELZ	*Lycodes spp.*
38. European conger	COE	*Conger conger*
39. European pearch	FPE	*Perca fluviatilis*
40. Flatfish, flounder	FLX	*Pleuronectiformes, Platichthys flesus*
41. Forkbeards	FOX	*Phycis spp.*
42. Frilled shark	HXC	*Chlamydoselachus anguineus*
43. Greater silver smelt	ARU	*Argentina silus*
44. Greenland halibut	GHL	*Reinhardtius hippoglossoides*
45. Grenadier	GRV	*Macrourus spp.*
46. Great Atlantic Scallop	SCE	*Pecten maximus*
47. Great lantern shark	ETR	*Etmopterus princeps*
48. Greenland shark	GSK	*Somniosus microcephalus*
49. Grey rockcod	NOS	*Lepidonotothen squamifrons*
50. Gulper shark	GUP	*Centrophorus granulosus*
51. Haddock	HAD	*Melanogrammus aeglefinus*
52. Hake	HKE	*Merluccius merluccius*
53. Herring	HER	*Clupea harengus*
54. Horse mackerel	JAX	*Trachurus spp.*
55. Humped rockcod	NOG	*Gobionotothen gibberifrons*
56. Iceland catshark	APQ	*Apristurus laurussonii*
57. Kitefin shark	SCK	*Dalatias licha*
58. Knifetooth dogfish	SYR	*Scymnodon rigens*
59. Krill	KRI	*Euphausia superba*
60. Lantern fish	LAC	*Lampanyctus achirus*
61. Large-eyed rabbitfish	CYH	*Hydrolagus mirabilis*
62. Leafscale gulper shark	GUQ	*Centrophorus squamosus*
63. Lemon sole	LEM	*Microstomus kitt*
64. Ling	LIN	*Molva molva*
65. Lumpsucker	LUM	*Cyclopterus lumpus*

66. Longnose velvet dogfish	CYP	*Centroscymnus crepidater*
67. Mackerel	MAC	*Scomber scombrus*
68. Marbled rockcod	NOR	*Notothenia rossii*
69. Mediterranean slimehead	HPR	*Hoplostethus mediterraneus*
70. Megrims	LEZ	*Lepidorhombus spp.*
71. Mouse catshark	GAM	*Galeus murinus*
72. Northern prawn	PRA	*Pandalus borealis*
73. Norway lobster	NEP	*Nephrops norvegicus*
74. Norway pout	NOP	*Trisopterus esmarki*
75. Norway redfish	SFV	*Sebastes viviparus*
76. Norwegian skate	JAD	*Raja nidarosiensis*
77. Orange roughy	ORY	*Hoplostethus atlanticus*
78. 'Penaeus' shrimps	PEN	*Penaeus spp*
79. Pike	FPI	*Esox lucius*
80. Pike pearch	FPP	*Sander lucioperca*
81. Plaice	PLE	*Pleuronectes platessa*
82. Polar cod	POC	*Boreogadus saida*
83. Pollack	POL	*Pollachius pollachius*
84. Porbeagle	POR	*Lamna nasus*
85. Portuguese dogfish	CYO	*Centroscymnus coelolepis*
86. Rabit fish	CMO	*Chimaera monstrosa*
87. Rays	RAJ	*Rajidae*
88. Redfish	RED	*Sebastes spp.*
89. Red Seabream	SBR	*Pagellus bogaraveo*
90. Risso's smooth-head	PHO	*Alepocephalus rostratus*
91. Roughead grenadier	RHG	*Macrourus berglax*
92. Roundnose grenadier	RNG	*Coryphaenoides rupestris*
93. Round ray	RJY	*Raja fyllae*
94. Sailfin roughshark	OXN	*Oxynotus paradoxus*
95. Saithe	POK	*Pollachius virens*
96. Sandeel	SAN	*Ammodytidae*
97. Scallop	KMV	*Chlamys livida*
98. Seabass	BSS	*Dicentrarchus labrax*
99. Short fin squid	SQI	*Illex illecebrosus*
100. Silver scabbardfish	SFS	*Lepidopus caudatus*

101.	Skates	SRX	*Rajidae*
102.	Smooth lantern shark	ETP	*Etmopterus pusillus*
103.	Snow crab	PCR	*Chionoecetes spp.*
104.	South Georgian icefish	SGI	*Pseudochaenichthys georgianus*
105.	Spanish ling	SLI	*Molva macrophthalmus*
106.	Spinous spider crab	SCR	*Maja squinado*
107.	Sprat	SPR	*Sprattus sprattus*
108.	Spurdog	DGS	*Squalus acanthias*
109.	Straightnose rabbitfish	RCT	*Rhinochimaera atlantica*
110.	Swordfish	SWO	*Xiphias gladius*
111.	Toothfish	TOP	*Dissostichus eleginoides*
112.	Tope shark	GAG	*Galeorhinus galeus*
113.	Turbot	TUR	*Psetta maxima*
114.	Tusk	USK	*Brosme brosme*
115.	Unicorn icefish	LIC	*Channichthys rhinoceratus*
116.	Velvet belly	ETX	*Etmopterus spinax*
117.	White marlin	WHM	*Tetrapturus alba*
118.	Whiting	WHG	*Merlangius merlangus*
119.	Witch flounder	WIT	*Glyptocephalus cynoglossus*
120.	Wreckfish	WRF	*Polyprion americanus*
121.	Yellowfin tuna	YFT	*Thunnus albacores*
122.	Yellowtail flounder	YEL	*Limanda ferruginea*

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EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR MARITIME AFFAIRS AND FISHERIES

POLICY DEVELOPMENT AND CO-ORDINATION
COMMON FISHERIES POLICY AND AQUACULTURE

Brussels,
MARE A2/MT/ D(2011)

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Subject: **CORRIGENDUM**

Fishing effort management schemes related to recovery and management plans in the Baltic Sea, the North Sea, to the Western waters, to the deep sea fisheries and review of fisheries located in the Celtic Sea.

Message:

On Wednesday 23-02-2011 DG MARE sent a data call to all Member States' permanent representations regarding the preparation of the analytical work of the STECF 'Working Group on fishing effort regime evaluations' (reference Ares (2011)200418-23/02/2011).

With this CORRIGENDUM, we draw your attention to a change that needs to be made to the specifications given in the above mentioned data call. Another point of attention is a correction of the summary table of data not submitted by Member States (annex I of the data call).

It is important that the experts of the STECF are in a position to clearly identify the trips of vessels participating in trials on fully documented fisheries, as defined in appendix 6, in order to prevent confusion and discussion about the quality of the results. To make that possible, annex II part A (Catch data), part B (Effort data) and part C (Specific effort data by rectangle) of the data call need to be revised.

Correction of the Summary table (annex I)

Annex I of the data call incorrectly stated that Belgium had failed to submit discard data for one metier at the moment of the STECF November Plenary. The Belgium discard data were available at the STECF November meeting 2010.

Fully documented fisheries in Annex IIA areas and the Baltic sea

Fully documented fisheries trips FDFIIA and FDFBAL can fall under more than one special condition, i.e. FDFIIA in Annex IIA with the special conditions CPart11, CPart 13, and FDFBAL with special conditions BACOMA and T90. This would impede the data aggregation to be accurate.

In order to avoid such potential conflicts, it is necessary that the trips of special condition FDFIIA in Annex IIA areas and of special condition FDFBAL in the Baltic Sea are aggregated separately and appended to the data submission, exactly as it is done for the special condition DEEP.

For that reason point 10 of Annex II part A (Catch data), part B (Effort data) and part C (Specific effort data by rectangle) is substituted as follows:

For part A (Catch data), point 10:

> **10. SPECON** to be specified in accordance with Appendix 6, if SPECON is not available or not applicable, "-1" should be given. All landings, discards and other biological parameters falling under the Deep Sea regulations should be aggregated separately, indicated with SPECON=DEEP and appended to the data base. This will allow separate analyses of Deep Sea effort, without conflicts with other effort management schemes. ***All landings, discards and other biological parameters of vessels participating in trials on fully documented fisheries in the Annex IIA areas (R(EU) no 53/2010) or in the Baltic Sea (R(EC) No 1098/2007) should be aggregated separately, indicated with SPECON=FDFIIA for the Annex IIA areas and SPECON=FDFBAL for the Baltic Sea and appended to the data base. This will allow separate analyses of data related to fully documented fisheries, without conflicts with other effort management schemes.***

For part B (Effort data), point 10:

> **10. SPECON** to be specified in accordance with Appendix 6, if SPECON is not available or not applicable, "-1" should be given. All effort parameters falling under the Deep Sea regulations should be aggregated separately, indicated with SPECON=DEEP and appended to the data base. This will allow separate analyses of Deep Sea effort, without conflicts with other effort management schemes. ***All effort parameters of vessels participating in trials on fully documented fisheries in the Annex IIA areas (R(EU) no 53/2010) or in the Baltic Sea (R(EC) No 1098/2007) should be aggregated separately, indicated with SPECON=FDFIIA for the Annex IIA areas and SPECON=FDFBAL for the Baltic Sea and appended to the data base. This will allow separate analyses of data related to fully documented fisheries, without conflicts with other effort management schemes.***

For part C (Specific effort data by rectangle), point 10:

> **10. SPECON** to be specified in accordance with Appendix 6, if SPECON is not available or not applicable, "-1" should be given. The effort parameter falling under the Deep Sea regulations should be aggregated separately, indicated with SPECON=DEEP and appended to the data base. This will allow separate analyses of Deep Sea effort, without conflicts with other effort management schemes. ***The effort parameter of vessels participating in trials on fully documented fisheries in the Annex IIA areas (R(EU) no 53/2010) or in the Baltic Sea (R(EC) No 1098/2007) should be aggregated separately, indicated with SPECON=FDFIIA for the Annex IIA areas and SPECON=FDFBAL for the Baltic Sea and appended to the data base. This will allow separate analyses of data related to fully documented fisheries, without conflicts with other effort management schemes.***

I hope this clarification makes it possible to apply the categorizations mentioned in order to improve the usefulness of the data provided by the Member States.

Member States are invited to provide the requested data to the Commission and to the scientists who would attend the meeting no later than **6 May 2011**.

Ernesto PENAS LADO
Director

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ANNEX 3: EXPERT DECLARATIONS

Declarations of invited experts are published on the STECF web site on https://stecf.jrc.ec.europa.eu/home together with the final report.

European Commission

EUR 25035 EN **– Joint Research Centre – Institute for the Protection and Security of the Citizen**
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EWG-11-11 members: Barratt, K., Bell, E., Carlshamre, S., Davie, S., Demaneche, S., Dolder, P., Holmes, S., Jardim, E., Kempf, A., Kovsars, M., Lövgren, J., O'Hea, B., Radtke, K., Raid, T., Silva, C., Van der Kamp, P., Vermand, Y., Mitrakis, N.

STECF members: Casey, J., Abella, J. A., Andersen, J., Bailey, N., Bertignac, M., Cardinale, M., Curtis, H., Daskalov, G., Delaney, A., Döring, R., Garcia Rodriguez, M., Gascuel, D., Graham, N., Gustavsson, T., Jennings, S., Kenny, A., Kirkegaard, E., Kraak, S., Kuikka, S., Malvarosa, L., Martin, P., Motova, A., Murua, H., Nowakowski, P., Prellezo, R., Sala, A., Somarakis, S., Stransky, C., Theret, F., Ulrich, C., Vanhee, W. & Van Oostenbrugge, H.

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Abstract
EWG-11-11 meeting was held on 26 – 30 September 2011 in Cadiz (Spain). This Section of the report covers the Baltic Sea and provides fleet specific trends in catch (including discards), nominal effort and catch (landings) per unit of effort in order to advise on fleet specific impacts on stocks under multiannual management plans. STECF reviewed the report during its November 2011 plenary meeting.

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