JRC Scientific and Technical Reports

Scientific, Technical and Economic Committee for Fisheries (STECF)

-

Opinion by written procedure

-

Report of the SGMOS-09-05 Working Group Fishing Effort Regime in the Baltic

28 SEPTEMBER – 2 OCTOBER 2009, ISPRA, ITALY

Prepared in draft by SGMOS-09-04: 25 – 30 May 2009,

LISBON, PORTUGAL

Edited by Nick Bailey & Hans-Joachim Rätz

EUR 24305 EN - 2010

JRC EUROPEAN COMMISSION

ipsc Institute for the Protection and Security of the Citizen

The mission of the Institute for the Protection and Security of the Citizen (IPSC) is to provide research results and to support EU policy-makers in their effort towards global security and towards protection of European citizens from accidents, deliberate attacks, fraud and illegal actions against EU policies

European Commission
Joint Research Centre
Institute for the Protection and Security of the Citizen

Contact information
Address: TP 051, 21027 Ispra (VA), Italy
E-mail: stecf-secretariat@jrc.ec.europa.eu
Tel.: 0039 0332 789343
Fax: 0039 0332 789658

https://stecf.jrc.ec.europa.eu/home
http://ipsc.jrc.ec.europa.eu/
http://www.jrc.ec.europa.eu/

JRC 57572

EUR 24305 EN
ISBN 978-92-79-15354-9
ISSN 1018-5593
DOI 10.2788/80511

Luxembourg: Office for Official Publications of the European Communities

Printed in Italy

TABLE OF CONTENTS

SCIENTIFIC, TECHNICAL AND ECONOMIC COMMITTEE FOR FISHERIES (STECF)

STECF COMMENTS ON THE REPORT OF THE SGMOS-09-05 WORKING GROUP REPORT

28 SEPTEMBER – 2 OCTOBER 2009, ISPRA, ITALY

PREPARED IN DRAFT BY SGMOS-09-04: 25 - 30 May 2009, LISBON, PORTUGAL

STECF UNDERTOOK THE REVIEW BY WRITTEN PROCEDURE IN MARCH 2010

1. BACKGROUND:

STECF is requested to review the report of the **SGMOS-09-05** of September 28 September - 2 October, 2009 (Ispra) meeting, evaluate the findings and make any appropriate comments and recommendations.

The working group was requested for:

1 – an assessment of fishing effort deployed by fisheries and métiers which are currently affected by fishing effort management schemes in relation to the management plan for Baltic cod (Regulation (EC) No 1098/2007).

2. 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 designed in **R(EC) No 1098/2007**;

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 in number of vessels concerned

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

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

d. 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 10 metres in each

fishery, by gear and by Member State according to sampling plans implemented to estimate these parameters.

4. To describe, as far as possible, the spatial distribution of the fishing effort deployed in the Baltic Sea, according to data reported in logbooks on the basis of ICES statistical rectangles, with the aim to determine to what extent fishing effort has moved from long distance to coastal areas since the implementation of first fishing effort regime for the first time in such areas.

3. STECF COMMENTS

- STECF notes that the work of the SGMOS 09-05 WG is primarily to collate and summarise data provided by member states. In this respect the output and utility of its work is heavily dependent on timely submission of accurate material and the WG is only able to provide output which reflects the quality of the data submitted. STECF also notes that, while the SGMOS 09-05 WG makes every effort to accommodate updates and revisions from member states, it is not always possible to capture all of these in the WG reports, especially if such revisions are received too close to or during the WG meeting.

- STECF notes that in common with previous effort evaluation exercises undertaken by STECF-SGMOS (covering other geographical areas), the data submission from member states for the analysis covered in this report was often absent, late or inconsistent.

- The SGMOS 09-05 WG made good progress with the data submitted but was hampered by the lack of adequate fishing effort information from some nations, and incomplete information from a number of nations. The most significant shortfall was effort data from Poland.

- STECF notes that availability of discard data is limited and the extent to which it is representative of the discarding practices throughout the different fleets is a cause for concern. This implies that estimates of catch and CPUE indices may be misleading and this should be borne in mind when drawing inferences from such data.

- On the basis of the partial effort data supplied, it appears that during 2002-2008 the overall effort including all regulated and unregulated gears measured in kW*days in the Baltic has reduced by about 16%. Given that there were marked reductions in Area A (one of the regions particularly important for cod) and in view of the shift from all regulated gears to unregulated pelagic gears it seems likely that fishing effort on cod has decreased, although the magnitude of the decrease cannot be reliably quantified at present.

- 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 2003.

- 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 important.

- From the data submitted by Member States, under 10m vessels account for about 13% of landings of cod in 2008. However this is clearly an underestimate, since only a few countries supplied data.

- Interpretation of spatial information on effort is confounded by the restricted number of countries supplying appropriate information. Existing evidence suggests there has been a westward shift in effort since 2003.

- STECF recommends that the effort figures contained in the report should be treated as preliminary and incomplete and that every attempt should be made by the Commission and Member State authorities to encourage a more complete submission in 2010 and future years.

4. STECF CONCLUSIONS AND RECOMMENDATIONS

Taking the above observations into account, STECF concludes that the SGMOS 09-05 Report represents the best possible interpretation of the catch and effort data submitted by Member States on Baltic Sea Fisheries. STECF endorses the findings in the report with the following reservations:

1. Availability of data on discards is limited and may not be wholly representative of discarding practices occurring in Member States' fleets. Catch estimates and indices of CPUE may therefore be misleading.

2. The fishing effort data and summaries contained in the report should be treated as preliminary and incomplete.

3. STECF recommends that every attempt should be made by the Commission and Member State authorities to encourage a more complete submission in 2010 and future years.

1. APPENDIX I STECF/SGMOS-09-05 WORKING GROUP REPORT

STECF/SGMOS-09-05 WORKING GROUP REPORT

ON ASSESSMENT OF FISHING EFFORT REGIME IN THE BALTIC

ISPRA, 28 SEPTEMBER - 2 OCTOBER 2009

PREPARED IN DRAFT BY SGMOS-09-04: 25 – 30 MAY, LISBON, PORTUGAL

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

2. SUMMARY

General remarks

Review of Baltic Sea catch and effort in the context of the management plan for Baltic cod Council Reg 1098 2007

- STECF SGMOS made good progress with the available data but was hampered by the lack of adequate fishing effort information from some nations, and incomplete information from a number of nations.

- The most significant shortfall was effort data from Poland.

- 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.

- On the basis of the partial effort data supplied, the overall effort in the Baltic has reduced by about 16%. Given that there were marked reductions in Area A (one of the regions particularly important for cod) and in view of the shift from regulated gears to unregulated pelagic gears 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 2003.

- 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 important.

- Under 10m vessels account for about 13% of landings of cod but this is an underestimate since only a few countries supplied data.

- Interpretation of spatial information on effort is confounded by the restricted number of countries supplying material. Existing evidence suggests there has been a westward shift in effort since 2003.

3. INTRODUCTION

The STECF sub-group on "fishing effort management" held its first annual meeting in Lisbon in Portugal, 21-25 May 2009 (SGMOS-09-04). A follow-up meeting (SGMOS 09-05) was called to order in Ispra, Italy, 28 September – 2 October 2009. 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.

3.1. Terms of Reference

By 16th March 2009 (19th March including corrigendum) the DG Fish of the EU-Commission asked STECF to evaluate the current effort regime in the Baltic in the context of the cod management plan. Following TORs should be answered:

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 designed in **R(EC) No 1098/2007**;

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 in number of vessels concerned

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

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

d. 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 10 metres in each

fishery, by gear and by Member State according to sampling plans implemented to estimate these parameters.

4. To describe, as far as possible, the spatial distribution of the fishing effort deployed in the Baltic Sea, according to data reported in logbooks on the basis of ICES statistical rectangles, with the aim to determine to what extent fishing effort has moved from long distance to coastal areas since the implementation of first fishing effort regime for the first time in such areas.

3.2. Participants

In 2007, STECF and its subgroups adopted a new working style with opportunities for stakeholders to be involved as observers to improve transparency in scientific evaluations. The stakeholder involvement was in accordance with the protocol for STECF meetings observers, Brussels, 20 September 2006.

Experience during the first meeting again showed that representatives of stakeholder organisations and interest groups were very interested in the data and evaluation of the basic information regarding the trends in fleet specific information although there were none present with specific interest in the Baltic Sea. Contributions took the form of constructive questions and clarifying comments mainly focussed on recent experience of fishing activity by different fleets.

Participants of the meeting are grouped by STECF members, invited experts, JRC experts, stakeholder, and EU-Commission representatives and are listed in Annex 2.

3.3. History of technical measures and effort restrictions in the Baltic

Up until 1994 the minimum mesh size (MMS) for the cod fishery in the Baltic was 105 mm. The international Baltic fishery commission (IBSFC) decided in 1994 to increase the mesh size to 120 mm diamond mesh and to increase the minimal landing size of cod from 33 to 35 cm

During 2002 following the results from the BACOMA project (Improving Technical Management in Baltic Cod Fishery) a 120 mm Bacoma panel in a 105 mm codend was allowed at the same time the MMS in the diamond mesh increased from 120 to 130 mm.

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

In 2006 another gear type was introduced for cod directed trawl fisheries in the Baltic sea in addition to the Bacoma 110 mm was allowed – this was the so called T90 (110mm).

Stop days and effort system

From 1995 and onwards there has been a three month summer closure (1 June to 31 August) for all cod fishery in the Baltic sea. From 2006 there has been an effort system in place for the Baltic sea. During 2006 and 2007 there were additional stop days in addition to the summer closure period. From 2008 the terminology changed and the term 'allowed days at sea' was introduced, the summer closure period was however retained.

The text table below shows the number of days at sea allowed 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)
22-24	92	117	223
25-28	119*	183*	178**

*There was no stop days in areas 28-32 during 2006-2007

** during 2008, there were no stop days in areas 29-32

3.4. Description of the current management plan for Baltic cod

The EC agreed on a management plan for cod in the Baltic Sea in September 2007 (EC 1098/2007). For Western Baltic cod (SD 22-24) the final aim of this plan 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. This should be reached through an annual reduction of fishing mortality (F) by 10% in relation to the fishing mortality estimated for the preceding year. However, the plan 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 latter 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 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 forbidden 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 of less than 12 metres 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 has evaluated the management plan in 2009 and considers it to be in accordance with the precautionary approach.

3.5. Available TACs for Baltic cod by member state

Currently, TACs for cod in the western Baltic are mainly shared between Denmark (43% of total TAC), Germany (21%), Sweden (16%) and Poland (12%) according to Council Regulation (EC) 1322/2008 (Figure 3.5.1). Highest TAC shares for Eastern Baltic cod (Figure 5.5.2) belong 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 3.5.1: TACs available to members states for western Baltic cod (SD 22-24) in 2009 as listed in council regulation (EC) 1322/2008.

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 3.5.2: TACs available to member states for Eastern Baltic Cod (SD 25-32) in 2009 as listed in council regulation (EC) 1322/2008.

3.6. 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 3.6.1). Remaining gear and mesh size combinations were taken to be unregulated gears (Table 3.6.2).

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 1d 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. Therefore, for this specific TOR a distinction in gear categories was made to take account of regulated mobile gears above 105mm and regulated static gears above 110mm.

Sub-Areas were defined according to R(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”. In addition, effort trends and catch compositions were also analysed for Subdivision 27 and 28.2 separately and presented alongside the analyses for the whole of area “B”. For full definitions of these areas refer to Regulation (EC) No. 1098/2007.

Table. 3.6.1 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 3.6.2 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

3.7. Data call

On 16th and 19th March 2009 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.

3.8. 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 calls from 16 and 19 May 2009 on catches including discards and effort is given in Annex 1 of this report.

3.8.1. 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. However, Denmark and Portugal reserves the right of the deletion of the national data on request.

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

3.8.2. Nominal fleet specific effort data 2000-2008

Member states should have delivered data in the format outlined in the data calls from 16 and 19 March 2009 (see Annex 1). In the following section the focus is on deviations from the data calls (Table 3.8.2.1).

A full set of data was provided by Finland, Germany, Latvia and Sweden. Denmark provided no information on special conditions, i.e. no vessels fishing with BACOMA-trawls could be identified based on available logbook data. Denmark also updated data after the meeting and full details of methodologies used will be provided in 2010. Estonia provided no information on mesh size and special conditions; this makes a distinction between regulated and unregulated gears impossible. In addition, only vessels above 15m were taken into account in the calculations and data were provided for 2006-2008 only. Lithuania provided data for 2005 – 2008. For these years, however, the data set was complete. Poland delivered no effort data.

Table 3.8.2.1. Overview of 2000-2008 effort data reports provided by EU member states with and without special conditions.

Country	Effort data 2000-2008
Denmark	no special conditions (data updated after meeting)
Estonia	only 2006-2008, no specon, no mesh size, only > 15m
Finland	kwdays, GT days, number of vessels
Germany	kwdays, GT days, number of vessels
Latvia	kwdays, GT days, number of vessels
Lithuania	only 2005-2008
Poland	no data
Sweden	kwdays, GT days, number of vessels

3.8.3. Effective fleet specific effort data by rectangle 2003-2008

Member states should have delivered data in the format outlined in the data calls from 16 and 19 March 2009 (see Annex 1). In the following section the focus is on deviations from these data calls (Table 3.8.3.1).

A full set of data was provided by Denmark, Germany and Latvia. Estonia delivered data for 2007 only and details on mesh size and special conditions are lacking. Finland only delivered cod specific effort data. Lithuania, Poland and Sweden did not deliver spatial disaggregated effort data.

Table 3.8.3.1. Overview of 2003-2008 spatial effort data reports provided by EU member states.

Country	Effort data 2003-2008
Denmark	hours by rectangle
Estonia	only 2007, no specon, no mesh size, only > 15m
Finland	hours by rectangle, only cod specific effort
Germany	hours by rectangle
Latvia	hours by rectangle
Lithuania	none
Poland	none
Sweden	none

3.8.4. Fleet specific landing and discard data 2003-2008

Member states should have delivered data in the format outlined in the data calls from 16 and 19 March 2009 (see Annex 1). In the following section the focus is on deviations from these data calls (Table 3.8.4.1).

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. Estonia delivered no discard data and information on landings for 2006-2008 only without information on mesh sizes. Finland provided landings and discard data but this was not age disaggregated. Lithuania, Poland and Sweden delivered catch data for cod only. Lithuania provided data for 2005 – 2008 only. Given the available data it was decided to focus on cod catches only in this report. Consequently TOR 1c could not be adequately addressed in this report.

In addition, according to the experts, none of the national data bases includes unallocated landings. Assignment of special conditions is based on best expert knowledge and data availability.

Some Member States did not provide essential quality parameters of the data. Consequently, STECF-SGMOS is in a poor situation 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 3.8.4.1: Overview of 2003-2008 landings data reports provided by EU member states.

Country	**landings data 2003-2008**
Denmark	landings, age composition, no specon
Estonia	only years 2006-2008, no mesh size
Finland	landings, no age composition
Germany	landings, age composition
Latvia	landings, age composition
Lithuania	only 2005-2008, no specon, only cod
Poland	landings, age composition only cod
Sweden	landings, age composition only cod

Table 3.8.4.2: Overview of 2003-2008 discard data reports provided by EU member states.

Country	**Discard data 2003-2008**
Denmark	discards, age composition, no specon
Estonia	none
Finland	discards, no age composition
Germany	discards, age composition
Latvia	discards, age composition
Lithuania	only 2005-2008, no specon, only cod
Poland	discard, age composition only cod
Sweden	discard, age composition only cod

3.8.5. Fleet specific landing and effort data 2003-2008 of small boats (<10m)

Denmark: Under 10m data were provided by Denmark. Owing to data updates after the meeting, full details of submitted data will be provided in 2010

Germany: Germany provided aggregated data regarding the fleet of vessels <10m. The data cover landings by area and species. However, no mesh size information is available from the landings declarations given in the years 2004-2008. The data are evaluated in section 6.7.

Sweden: Effort and landing data for vessels less than 10m were made available by Sweden in the same format as for larger vessels. Vessels <10 m that are using trawl and demersal seines are obliged to use the same logbook as larger vessels. Vessels <10m using other gears are using the "coastal fishing journal" which predominantly follows the same structure as the standard logbook. Sweden reported landings for vessels (<10m) for 2003-2008.

3.9. 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 discards and catch and discards at age among countries and replacing poor or lacking 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 Reg. 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:

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

(means no catch)

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

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

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 and 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 unweighted 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.

3.10. 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.**

3.11. 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 R(EC) 1098/2007. A definition of regulated and unregulated gear types can be found in section 5.6.

3.12. Presentation of under 10m information

This STECF-SGMOS report provides an overview of landings data provided by the experts regarding their national fisheries of vessels <10m, 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, they begin to give an idea of the scale of landings contributed by these smaller classes of vessel.

3.13. Presentation of spatial information on effective 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. The effective effort values of certain nations were given in days fished which were then converted to trawled hours by applying a factor of 24. STECF-SGMOS notes that attention should only be paid to major changes in the

geographical distribution patterns given the imprecision of the created data set. A full set of figures is available on the website but a selection of key gears is included in this report.

3.14. 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.

4. REVIEW OF THE EFFORT REGIME IN THE CONTEXT OF THE COD MANAGEMENT PLAN (REGULATION 1098/2007)

4.1. General remarks

This is the first report for the Baltic. Therefore, results have to be treated with caution.

In general, the data situation for the Baltic is rather poor. In particular, the fact that no effort data were submitted by Poland reduces the validity of the analyses considerably. Poland contributes considerably to cod catches in the Baltic (see under 3.5). Also, information from Estonia coul only be used to a very limited extent since information on mesh sizes was not provided. Therefore, all effort and catches from Estonia appear under unregulated gears even if in reality regulated gears were used. In addition, Lithuania provided data for 2005 – 2008 only and this could provide misleading trends in effort and catch over time.

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 had to be often 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 regulation 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 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.

4.2. Trends in nominal effort 2000-2008 by gear category, sub-area and member state

Table 4.2.1 lists the trends in effort for gear categories defined in the cod management plan R(EC) 1098/2007 in kW*days for the whole Baltic. Table 4.2.2 lists the trends in effort by gear category, sub-area and member state. Table 4.2.3 lists effort trends by gear category and sub-area. Since this is the first year data were provided for the Baltic, no comparison with previous submissions can be made. Figures 4.2.1 – 4.2.9 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) and 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.

Note that in the tables of Section 6.2 the category 'none none' contains a combination of the effort information for gears which were not covered by the data call and effort information for vessels which recorded no gear type or mesh size.

Although there are marked reductions in effort measured in kw-days especially for regulated gears in accordance with R(EC) 1097/2007, the total effort deployed in the Baltic in 2008 was only 16% lower compared to 2002 (Table 4.2.1). The reductions for regulated gear types were largely compensated by increases in effort for unregulated gear types (i.e. pelagic trawls <90mm mesh size)). A reduction in total effort could be observed for sub-area A (Table 4.2.3 and Figures 4.2.5 – 4.2.6). Since most cod catches stem from sub-area A and B (see section 4.3), the decrease in total effort in sub-area A and the shift from regulated to unregulated gear types mainly used in the pelagic fisheries most likely decreased the fishing pressure on Baltic cod.

The usage of BACOMA-trawls increased over the years (see figures 4.2.2; 4.2.3; 4.2.5; 4.2.7; 4.2.9). 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.

Table 4.2.1 Trend in nominal effort (kW*days at sea) by gear categories according to R(EC) 1098/2007, 2000-2008. Data qualities are summarised in Section 5.8.2 and Table 5.8.2.1. An "r" in front of the gear type indicates regulated gears. Gear types without an "r" are non-regulated gears (see also section 3.6). **Data from Poland were not available for inclusion. Relative change from 2002 to 2008.**

REG GEAR COD	SPECON	2000	2001	2002	2003	2004	2005	2006	2007	2008	rel change
BEAM	none	11990		184	129			1266	881	18779	101.06
DEM_SEINE	none	5135	315	544	273	560	128	1441		588	0.08
DREDGE	none	99673	104105	89576	58965	78384	72955	98780	110931	45088	-0.50
GILL	none	409940	400556	412861	365549	478614	552359	530287	563153	481562	0.17
none	none	95925	103339	84391	61231	50334	71332	62295	87600	80387	-0.05
OTTER	none	1922959	1852679	1439460	1538748	1817492	1803906	1563424	1214557	1056777	-0.27
PEL_SEINE	none	61969	39706	8306	1176	2499				3528	-0.58
PEL_TRAWL	none	11278766	10363555	9882013	11968032	14337196	12869136	11208659	11661573	11231001	0.14
POTS	none	122544	46353	68544	42613	26619	31518	28548	37903	21580	-0.69
r-BEAM	none		412	5401	2422		368			3867	-0.28
r-DEM_SEINE	BACOMA							35178	41376	46182	
	none	461293	615110	476985	366839	403285	272673	260424	242696	181090	-0.62
r-GILL	none	4908279	4901249	3861237	5675455	5017183	4270865	3634697	3164162	3160380	-0.18
r-LONGLINE	none	382496	628165	560722	641792	619168	670735	629102	357962	324225	-0.42
r-OTTER	BACOMA	2315742	2221912	1407424	1268373	1928260	2092374	4175215	3487150	3474581	1.47
	none	10568767	10960257	8429080	8888007	6741005	6756477	3858024	2827559	2713019	-0.68
r-PEL_TRAWL	BACOMA						17899	272262	310584	92062	
	none	1281383	2027367	641423	105274	505501	350848	536288	215404	41042	-0.94
r-TRAMMEL	none	248153	260132	233504	245851	223283	297432	240708	257607	270291	0.16
TRAMMEL	none	15430	11158	4335	10757	5883	9857	15996	28545	13105	2.02
Grand Total		34190444	34536370	27605990	31241486	32235266	30140862	27152594	24609643	23259134	-0.16

Table 4.2.2 Trend in nominal effort (kW*days at sea) by gear categories according to R(EC) 1098/2007, sub-area and Member State for 2000-2008. Data qualities are summarised in Section 3.8.2 and Table 3.8.2.1. An "r" in front of the gear type indicates regulated gears (see section 3.6). Gear types without an "r" are non-regulated gears. **Data from Poland were not available for inclusion. Relative change from 2002 to 2008.**

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	rel change
27	GILL	none	FIN	5630	3144	2350	5920	775	1800	1257	2734		-1.00
			SWE	7902	5667	1082	418	453	2621	2472	1763	809	-0.25
	none	none	SWE			60					404		-1.00
	OTTER	none	GER				12493		6768		735	5145	
	PEL_TRAWL	none	FIN		13194	1103	8429	507	2940	4410		5515	4.00
			GER			2206	77952	87507	64842	62517	35296	30879	13.00
			SWE	1469375	1659436	1979155	1314138	1738077	1315867	778168	685247	436098	-0.78
	POTS	none	SWE	31275	6451	17127			3883	3584	570		-1.00
	r-GILL	none	FIN			466	699		5118	762	230		-1.00
			GER	1168									
			SWE	263741	292677	216657	178545	114033	85235	90832	107085	102557	-0.53
	r-LONGLINE	none	SWE		12623	7533	1512	1954	2599	3315	1448	406	-0.95
	r-OTTER	BACOMA	FIN					1324					
			SWE	176804	167604	108775	46052	34533	1236	4024		458	-1.00
		none	FIN				6624						
			SWE	171814	245213	206289	171947	96988	114781	90956	105317	106409	-0.48
	r-PEL_TRAWL	none	SWE	8137	12067								
	r-TRAMMEL	none	SWE				202	199			146		
	TRAMMEL	none	SWE	4434	4336	1702	3709	900	1059	4127	11281	3555	1.09
28.2	GILL	none	EST							166			
			FIN	338		1524	2760	4724	6761	1257	8636		-1.00
			SWE			128							-1.00
	OTTER	none	EST							221	221		
			SWE	9240	7392	18240	31264	172423	161400	162005	132309	141559	6.76
	PEL_TRAWL	none	EST								438		
			FIN			1103	441	507	9925	4410		27575	24.00
			SWE	1156260	1463350	1128929	1797373	1909024	1404586	1402903	1123713	965603	-0.14
	POTS	none	SWE		254								
	r-GILL	none	FIN			233			4906	466			-1.00
			SWE	242883	203798	148787	87406	54897	72903	49050	42810	49264	-0.67
	r-LONGLINE	none	FIN						762	466		920	
			SWE	2210	7705	5433	884	229	3155	4599		1988	-0.63
	r-OTTER	BACOMA	FIN				441						
			SWE	39543	3780		4355		837		837		
		none	FIN	4413			736						
			SWE	76482	73589	60509	6180	1236	13332				-1.00
	r-PEL_TRAWL	none	SWE	3232	6464								
	r-TRAMMEL	none	SWE						132	265	1959	3604	
A	BEAM	none	DEN				129			176			
			GER			184				1090	881	18779	101.06
	DEM_SEINE	none	DEN	284	315		126	560	128	1441			
			GER			544							-1.00
	DREDGE	none	DEN	99673	104105	89576	57591	78384	58087	75344	97071	32422	-0.64
			GER						14868	23436	13860	11340	
	GILL	none	DEN	28259	53485	52632	26583	23963	30432	7984	7048	7629	-0.86
			EST							22850	12969	29966	
			FIN	5841		699			834	1132			-1.00
			GER	230224	206598	249245	210038	249293	266938	228344	277784	263056	0.06
	none	none	DEN	82972	85478	62493	49442	36283	35269	39057	57186	53601	-0.14
			SWE	1407	2914	9784	1840	1295	19530	5496	14844	17937	0.83
	OTTER	none	DEN	879036	1110118	593851	400256	562265	498863	435548	263863	177834	-0.70
			GER	80498	93054	227446	276426	297954	332489	279214	241042	199688	-0.12
	PEL_SEINE	none	SWE	48900	35000								
	PEL_TRAWL	none	DEN	426280	425550	182698	257829	270683	292150	302602	165929	181808	0.00
			EST								1058		
			FIN			3971	18292	14155	7277	5880		735	-1.00
			GER	110818	57221	205763	256483	253823	250186	263650	298004	318514	0.55
			SWE	1494769	1153487	694288	589941	625253	430443	378616	319279	329848	-0.52
	POTS	none	DEN	2116	1699	1011		580	779	1592	3209	95	-0.91
			GER	9419	9376	12123	12893	6388	9185	14527	20302	11308	-0.07
			SWE	7732	7331	8891	11904	4196	10207	1607	4531	1992	-0.78
	r-BEAM	none	DEN				566						
			GER		412	3971	442		368			3867	-0.03
	r-DEM_SEINE	BACOMA	GER							23422	35151	38400	
		none	DEN	455390	612374	476793	366110	392845	257130	250643	238316	181090	-0.62
			GER					8604	1912				
			SWE	3930									
	r-GILL	none	DEN	597210	705070	511429	497506	492826	639488	462778	377866	399448	-0.22
			FIN			3029							-1.00
			GER	723991	781400	728025	786543	665478	752992	729093	750396	689997	-0.05
			LAT				148767	162879	172982	185325	30941	15028	
			LIT						19111	32901			
			SWE	457972	604264	465530	582447	496224	511894	431752	426638	489144	0.05
	r-LONGLINE	none	DEN	22764	81231	41523	57519	58033	40420	90751	49110	11148	-0.73
			FIN					6930	2490	982		1247	
			GER	67962	68781	72967	78859	81113	102521	77830	63909	61717	-0.15
			LIT						12533	0			
			SWE	1788	9615	17369	6532	43592	104525	37456	16677	13255	-0.24
	r-OTTER	BACOMA	FIN			22506	10591	3089		61005	33075	24990	0.11
			GER							1396480	1453434	1155745	
			LAT							1320	19588		
			LIT						57602	84342			
			SWE	336715	342267	121793	166816	192518	192263	314465	388070	325201	1.67
		none	DEN	4249523	4555012	3260673	2952354	2667927	2657655	1980720	1739445	1620660	-0.50
			FIN	26883	38363								
			GER	2908474	2973126	2208752	1907138	1759972	1671214	42769	23067	30793	-0.99
			LAT				2860		18516				
			SWE	300466	197801	193552	115945	35307	25407	23454	28194	10815	-0.94
	r-PEL_TRAWL	BACOMA	GER							19794	30856	3443	
			LIT						16799	0			
		none	DEN	41294	48812	19041	15917	11156	14220	26062	5868	2453	-0.87
			GER	22822	5310	4483	14551	3975	17039	440			-1.00
			SWE	42269	10966	685		2882	2424	4198		720	0.05
	r-TRAMMEL	none	DEN	197994	207855	179407	203190	176461	236136	191191	195965	215180	0.20
			GER	13435	15814	13493	10392	21308	27285	28412	35977	22434	0.66
			SWE	36724	36301	40604	28587	22578	32909	20376	21330	24178	-0.40
	TRAMMEL	none	DEN	2586	2426	716	2596	921	2405	466	265	528	-0.26
			GER	3976						294			
			SWE			215							-1.00

Table 4.2.2 continued

B	BEAM	none	DEN	11990								
	DEM_SEINE	none	SWE	4851			147					588
	DREDGE	none	DEN				1374					1326
	GILL	none	DEN	35621	36844	30966	11028	28229	6283	1886	1896	4770	-0.85
			EST							89972	61937	31416	
			FIN	79943	86070	70325	106508	129717	69254	34674	51678	29346	-0.58
			SWE	14998	6292	1328	565	453	2621	2472	2517	1838	0.38
	none	none	DEN	11327	13065	6394	4298	1951	5749	5681	2096	812	-0.87
			SWE	219	1882	5660	5651	8264	9240	10517	11269	6236	0.10
	OTTER	none	DEN	561592	400162	294954	445925	318128	261104	164526	130141	96627	-0.67
			EST							7052	11050		
			GER		2652		67270		7208		5145	23223	
			LAT				51919	44821	34091	42156	14806		
			SWE	355167	236251	297974	237157	421901	498564	458637	410681	403477	0.35
	PEL_SEINE	none	SWE	13069	4706	8306	1176	2499				3528	-0.58
	PEL_TRAWL	none	DEN	1187029	715011	901494	518796	421779	694817	421616	716616	765500	-0.15
			EST							60776	118378	98815	
			FIN	51729	71078	81862	49757	43626	50353	25725	33075	116538	0.42
			GER			41794	202554	439233	273116	272149	326914	293399	6.02
			LAT				1710328	1691043	1604324	1329424	1516043	1349236	
			SWE	4334301	3802381	3972488	4321256	5186567	4197084	4694512	4472529	4199858	0.06
	POTS	none	SWE	31275	7020	17127			3883	3709	570	5053	-0.70
	r-BEAM	none	DEN			1430	1414						-1.00
	r-DEM_SEINE	BACOMA	GER							11756	6225	7782	
		none	DEN	1973	2736	192	729	880	13631	9781	4380		-1.00
			GER					956					
	r-GILL	none	DEN	327070	324467	234112	308655	285039	203266	149914	106096	106707	-0.54
			FIN			3029	3029	2097	17677	10823	12154	3000	-0.01
			GER	20807	9636	11804	11696	8290	41189	14209	11824	5048	-0.57
			LAT				1528152	1530437	759804	655281	617637	564001	
			LIT						93187	55397	90686	128949	
			SWE	2079315	1767488	1337671	1333558	1048403	861520	729248	547360	577986	-0.57
	r-LONGLINE	none	DEN	158769	221203	197610	248280	139745	126440	90135	56202	30613	-0.85
			FIN				3150	6932	9199	24788	13146	23175	
			GER	663	442	1752	10248	11771	16799	9881	11920	17580	9.03
			LAT									2480	
			LIT						264	59543	35332	34991	
			SWE	128340	226565	216535	234808	268869	249028	229356	110218	124625	-0.42
	r-OTTER	BACOMA	FIN			65754	77228	58238	52185	74970	66150	38955	-0.41
			GER							163096	80177	189211	
			LAT							414009	245422	262938	
			LIT						342503	192759	170844	382050	
			SWE	1762680	1708261	1088596	962890	1638558	1445748	1468745	1029553	1092873	0.00
		none	DEN	1309446	1364856	1161467	1489450	1015899	1156616	1280154	581971	641184	-0.45
			FIN	132133	121041	3641	8684					5515	0.51
			GER	166017	208345	223082	334236	213199	280775			1987	-0.99
			LAT				502973	410511	330478				
			SWE	1006985	970195	892491	1082134	297533	257715	173238	104651	63146	-0.93
	r-PEL_TRAWL	BACOMA	GER							127086	70379	16691	
			LAT							35464	123902	10521	
			LIT						1100	89918	85447	61407	
		none	DEN	142169	170472	89028	68859	51827	44047	96113	31102	1010	-0.99
			GER	198637	288971	125480		182107	143688				-1.00
			LAT				5947	114489	10972				
			SWE	822823	1484305	402706		139065	118458	409475	178434	36859	-0.91
	r-TRAMMEL	none	DEN				3278	2064	792	199		1104	
			SWE		162		202	673	178	265	2230	3791	
	TRAMMEL	none	SWE	4434	4396	1702	4452	3444	3396	6865	14061	5540	2.25
C	GILL	none	EST							664			
			FIN	1184	2456	2582	1729	6341	3817	2052	3664	402	-0.84
			SWE					34666	160998	133105	130527	112330	
	none	none	SWE					2541	1544	1544	1801	1801	
	OTTER	none	DEN	37426	3050	6995	8350		1879	14065	4564	5549	-0.21
			GER				7688		1540			3675	
	PEL_TRAWL	none	DEN	50154	42328	19682	15067	37216	6428	18960	52871	156824	6.97
			FIN		41107	31001	158642	50044	119124			20957	-0.32
			GER			6620	16845	73352	77497	27064	81547	69053	9.43
			LAT					184		4677	162	956	
			SWE	998051	915441	613535	658046	1501494	2069574	1156480	1713739	1864025	2.04
	POTS	none	FIN		311								
			SWE	40727	13911	12265	17816	15455	3581	3529	8721	3132	-0.74
	r-GILL	none	FIN				233	1864	6164	2160	5592		
			SWE	194122	212449	200465	208219	154716	23429	34706	36847	29251	-0.85
	r-LONGLINE	none	SWE									80	
	r-OTTER	BACOMA	SWE									2160	
		none	FIN		1015	3530	88320						-1.00
			SWE	216131	211701	215094	218426	242433	229988	266733	244914	232510	0.08
	TRAMMEL	none	SWE					618	2997	4244	2938	3482	
(blank)	(blank)	(blank)	(blank)										
Grand Total				34190444	34536370	27605990	31241486	32235266	30140862	27152594	24609643	23259134	-0.16

Table 4.2.3. Trend in nominal effort (Kw *days at sea) by gear categories and sub-area 2000-2008. Data qualities are summarised in Section 3.8.2 and Table 3.8.2.1. An "r" in front of the gear type indicates regulated gears in accordance with R(EC) 1098/2007 (see section 3.6). Gear types without an "r" are non-regulated gears. Data from Poland are not included. **Relative change from 2002 to 2008.**

REG AREA COD	REG GEAR COD	SPECON	2000	2001	2002	2003	2004	2005	2006	2007	2008	rel change
27	GILL	none	13532	8811	3432	6338	1228	4421	3729	4497	809	-0.76
	none	none			60					404		-1.00
	OTTER	none				12493		6768		735	5145	
	PEL_TRAWL	none	1469375	1672630	1982464	1400519	1826091	1383649	845095	720543	472492	-0.76
	POTS	none	31275	6451	17127			3883	3584	570		-1.00
	r-GILL	none	264909	292677	217123	179244	114033	90353	91594	107315	102557	-0.53
	r-LONGLINE	none		12623	7533	1512	1954	2599	3315	1448	406	-0.95
	r-OTTER	BACOMA	176804	167604	108775	46052	35857	1236	4024		458	-1.00
		none	171814	245213	206289	178571	96988	114781	90956	105317	106409	-0.48
	r-PEL_TRAWL	none	8137	12067								
	r-TRAMMEL	none				202	199			146		
	TRAMMEL	none	4434	4336	1702	3709	900	1059	4127	11281	3555	1.09
28.2	GILL	none	338		1652	2760	4724	6761	1423	8636		-1.00
	OTTER	none	9240	7392	18240	31264	172423	161400	162226	132530	141559	6.76
	PEL_TRAWL	none	1156260	1463350	1130032	1797814	1909531	1414511	1407313	1124151	993178	-0.12
	POTS	none		254								
	r-GILL	none	242883	203798	149020	87406	54897	77809	49516	42810	49264	-0.67
	r-LONGLINE	none	2210	7705	5433	884	229	3917	5065		2908	-0.46
	r-OTTER	BACOMA	39543	3780		4796		837		837		
		none	80895	73589	60509	6916	1236	13332				-1.00
	r-PEL_TRAWL	none	3232	6464								
	r-TRAMMEL	none						132	265	1959	3604	
A	BEAM	none			184	129			1266	881	18779	101.06
	DEM_SEINE	none	284	315	544	126	560	128	1441			-1.00
	DREDGE	none	99673	104105	89576	57591	78384	72955	98780	110931	43762	-0.51
	GILL	none	264324	260083	302576	236621	273256	298204	260310	297801	300651	-0.01
	none	none	84379	88392	72277	51282	37578	54799	44553	72030	71538	-0.01
	OTTER	none	959534	1203172	821297	676682	860219	831352	714762	504905	377522	-0.54
	PEL_SEINE	none	48900	35000								
	PEL_TRAWL	none	2031867	1640229	1101041	1118408	1157036	978659	944868	785005	830170	-0.25
	POTS	none	19267	18406	22025	24797	11164	20171	17726	28042	13395	-0.39
	r-BEAM	none		412	3971	1008		368			3867	-0.03
	r-DEM_SEINE	BACOMA							23422	35151	38400	
		none	459320	612374	476793	366110	401449	259042	250643	238316	181090	-0.62
	r-GILL	none	1779173	2090734	1708013	2015263	1817407	2096467	1841849	1585841	1593617	-0.07
	r-LONGLINE	none	92514	159627	131859	142910	189668	262489	207019	129696	87367	-0.34
	r-OTTER	BACOMA	336715	342267	144299	177407	195607	249865	1857612	1894167	1505936	9.44
		none	7485346	7764302	5662977	4978297	4463206	4372792	2046943	1790706	1662268	-0.71
	r-PEL_TRAWL	BACOMA						16799	19794	30856	3443	
		none	106385	65088	24209	30468	18013	33683	30700	5868	3173	-0.87
	r-TRAMMEL	none	248153	259970	233504	242169	220347	296330	239979	253272	261792	0.12
	TRAMMEL	none	6562	2426	931	2596	921	2405	760	265	528	-0.43
B	BEAM	none	11990									
	DEM_SEINE	none	4851			147					588	
	DREDGE	none				1374					1326	
	GILL	none	130562	129206	102619	118101	158399	78158	129004	118028	67370	-0.34
	none	none	11546	14947	12054	9949	10215	14989	16198	13365	7048	-0.42
	OTTER	none	916759	639065	592928	802271	784850	800967	672371	571823	523327	-0.12
	PEL_SEINE	none	13069	4706	8306	1176	2499				3528	-0.58
	PEL_TRAWL	none	5573059	4588470	4997638	6802691	7782248	6819694	6804202	7183555	6823346	0.37
	POTS	none	31275	7020	17127			3883	3709	570	5053	-0.70
	r-BEAM	none			1430	1414						-1.00
	r-DEM_SEINE	BACOMA							11756	6225	7782	
		none	1973	2736	192	729	1836	13631	9781	4380		-1.00
	r-GILL	none	2427192	2101591	1586616	3185090	2874266	1976643	1614872	1385757	1385691	-0.13
	r-LONGLINE	none	287772	448210	415897	496486	427317	401730	413703	226818	233464	-0.44
	r-OTTER	BACOMA	1762680	1708261	1154350	1040118	1696796	1840436	2313579	1592146	1966027	0.70
		none	2614581	2664437	2280681	3417477	1937142	2025584	1453392	686622	711832	-0.69
	r-PEL_TRAWL	BACOMA						1100	252468	279728	88619	
		none	1163629	1943748	617214	74806	487488	317165	505588	209536	37869	-0.94
	r-TRAMMEL	none		162		3480	2737	970	464	2230	4895	
	TRAMMEL	none	4434	4396	1702	4452	3444	3396	6865	14061	5540	2.25
C	GILL	none	1184	2456	2582	1729	41007	164815	135821	134191	112732	42.66
	none	none					2541	1544	1544	1801	1801	
	OTTER	none	37426	3050	6995	16038		3419	14065	4564	9224	0.32
	PEL_TRAWL	none	1048205	998876	670838	848600	1662290	2272623	1207181	1848319	2111815	2.15
	POTS	none	40727	14222	12265	17816	15455	3581	3529	8721	3132	-0.74
	r-GILL	none	194122	212449	200465	208452	156580	29593	36866	42439	29251	-0.85
	r-LONGLINE	none									80	
	r-OTTER	BACOMA									2160	
		none	216131	212716	218624	306746	242433	229988	266733	244914	232510	0.06
	TRAMMEL	none					618	2997	4244	2938	3482	
(blank)	(blank)	(blank)										
Grand Total			34190444	34536370	27605990	31241486	32235266	30140862	27152594	24609643	23259134	-0.16

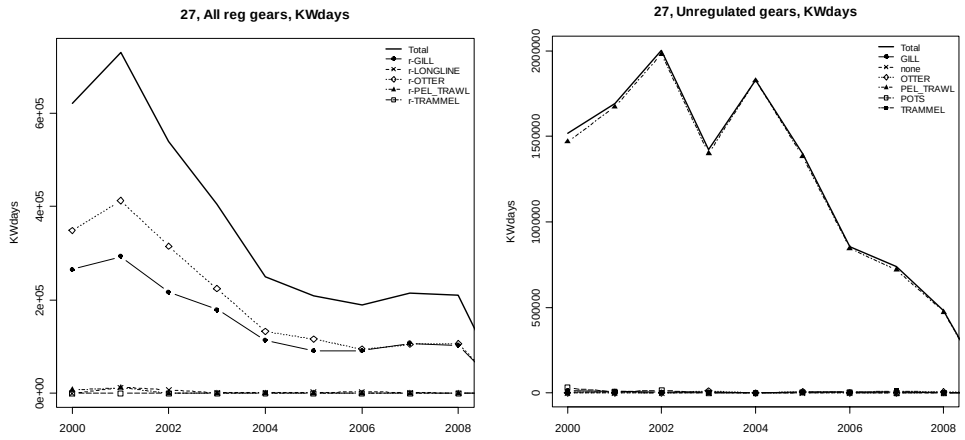

Figure 4.2.1. Area 27 Baltic: Trend in nominal effort by gear types, 2000-2008 (Kw *days at sea). Left: Regulated gears. Right Unregulated gears. **Note that these figures are without data from Poland and with limited data from Estonia and Lithuania.**

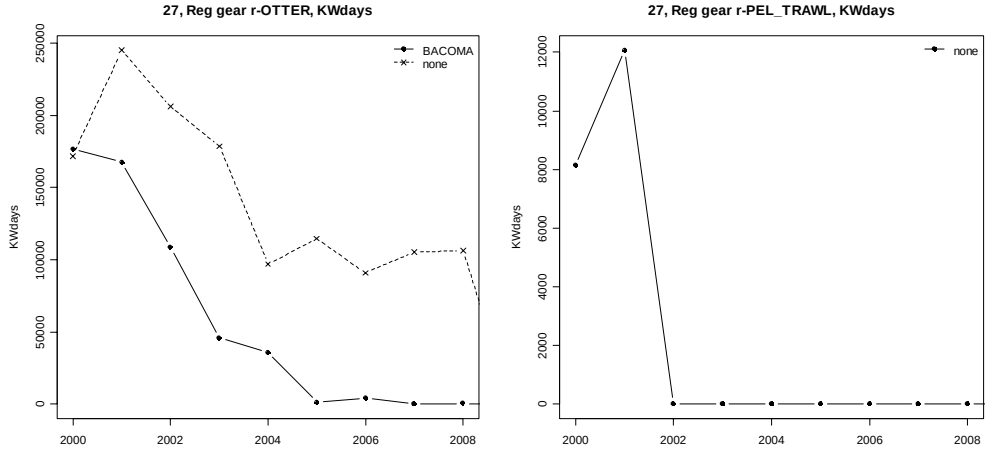

Figure 4.2.2. Area 27 Baltic: Trend in nominal effort by special conditions, 2000-2008 (Kw *days at sea). **Note that these figures are without data from Poland and with limited data from Estonia and Lithuania.**

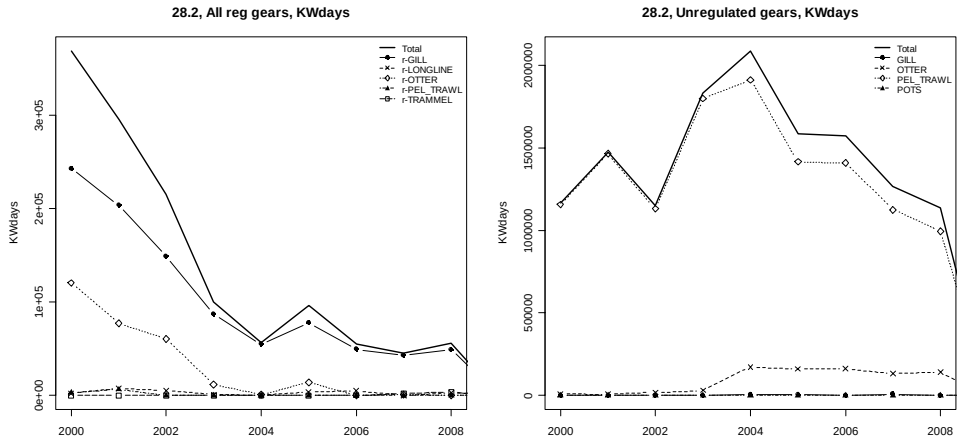

Figure 4.2.3. Area 28.2 Baltic: Trend in nominal effort by gear types, 2000-2008 (Kw *days at sea). Left: Regulated gears. Right Unregulated gears. **Note that these figures are without data from Poland and with limited data from Estonia and Lithuania.**

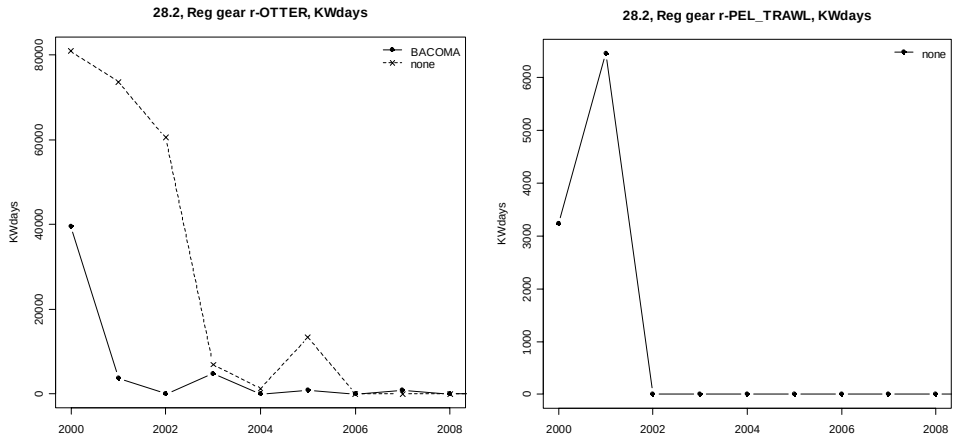

Figure 4.2.4. Area 28.2 Baltic: Trend in nominal effort by special conditions, 2000-2008 (Kw *days at sea). **Note that these figures are without data from Poland and with limited data from Estonia and Lithuania.**

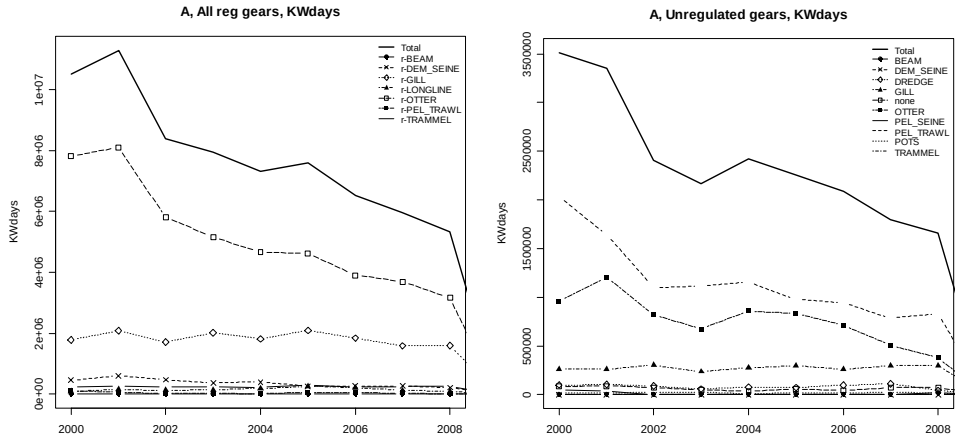

Figure 4.2.5. Area A Baltic: Trend in nominal effort by gear types 2000-2008 (Kw *days at sea). Left: Regulated gears. Right Unregulated gears. **Note that these figures are without data from Poland and with limited data from Estonia and Lithuania.**

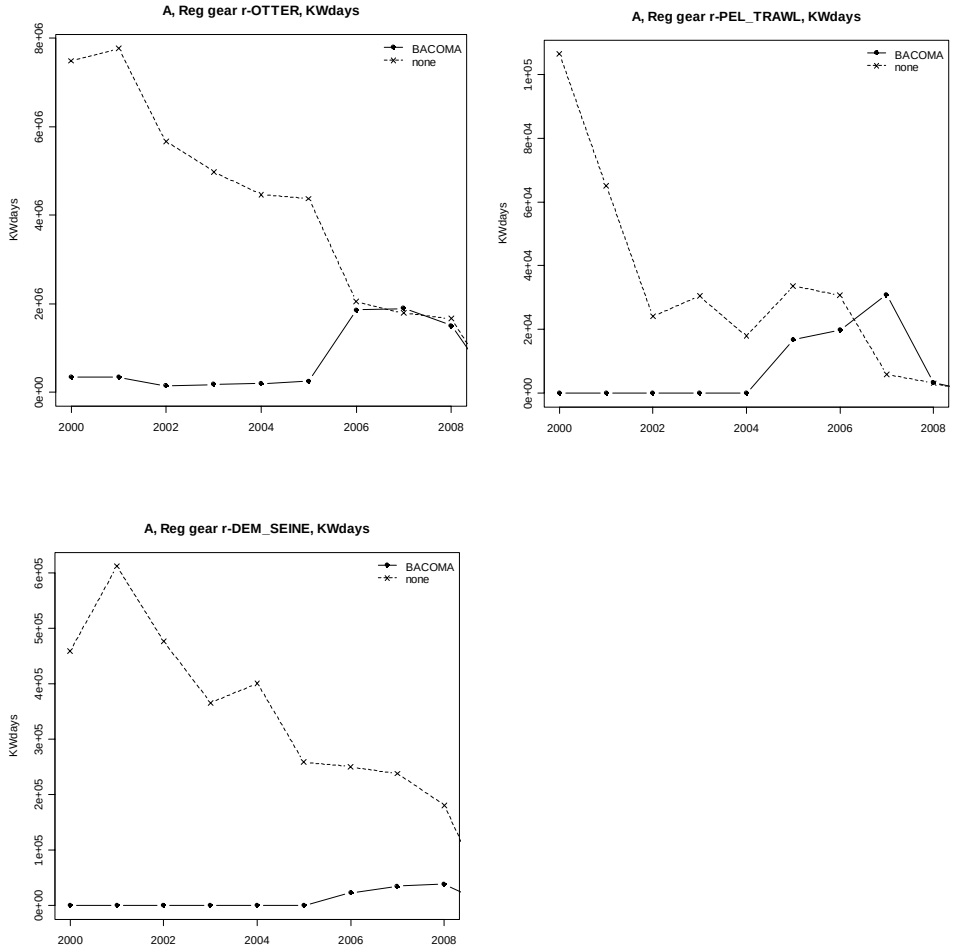

Figure 4.2.6. Area A Baltic: Trend in nominal effort by special conditions, 2000-2008 (Kw *days at sea). **Note that these figures are without data from Poland and with limited data from Estonia and Lithuania.**

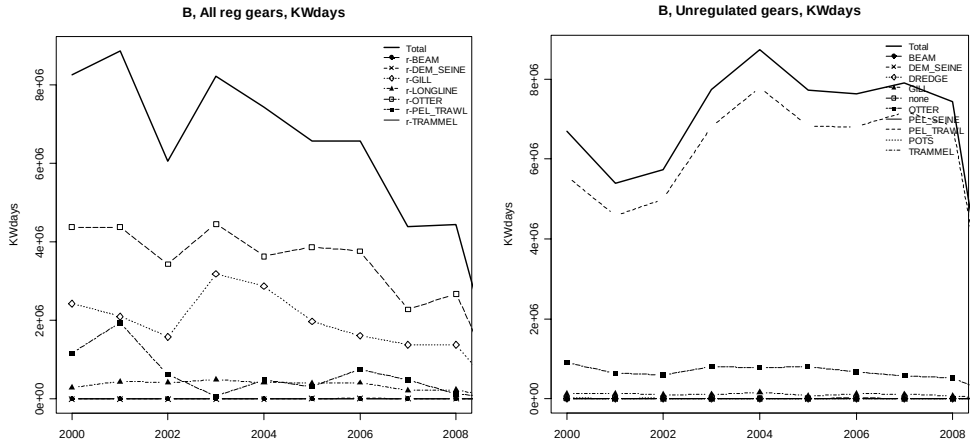

Figure 4.2.7. Area B Baltic: Trend in nominal effort by gear types 2000-2008 (Kw *days at sea). Left: Regulated gears. Right Unregulated gears. **Note that these figures are without data from Poland and with limited data from Estonia and Lithuania.**

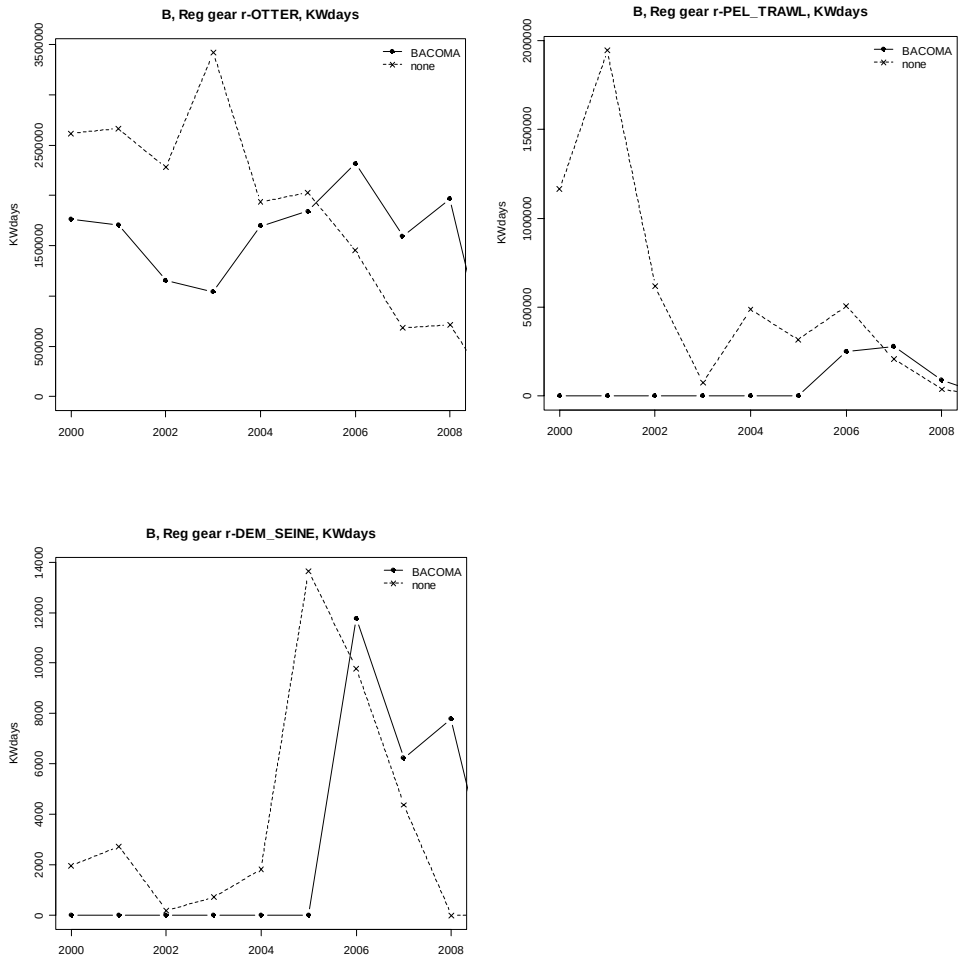

Figure 4.2.8. Area B Baltic: Trend in nominal effort by special conditions, 2000-2008 (Kw *days at sea). **Note that these figures are without data from Poland and with limited data from Estonia and Lithuania.**

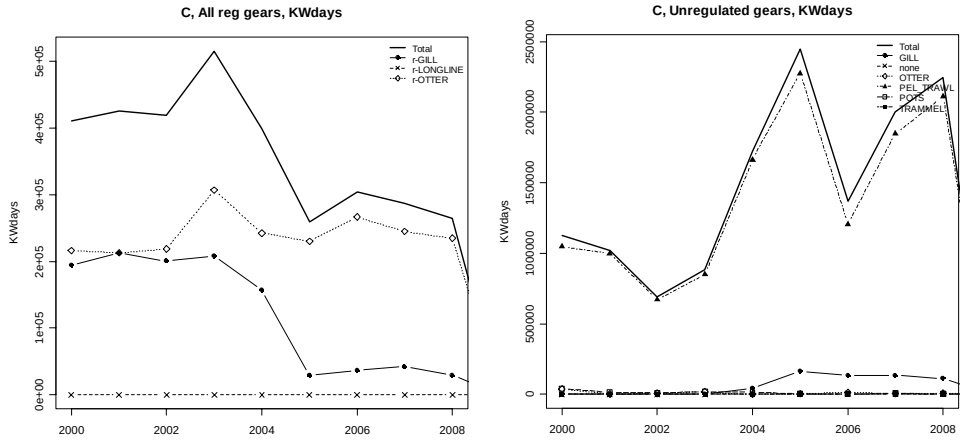

Figure 4.2.9. Area C Baltic: Trend in nominal effort by gear types 2000-2008 (Kw *days at sea). Left: Regulated gears. Right Unregulated gears. **Note that these figures are without data from Poland and with limited data from Estonia and Lithuania.**

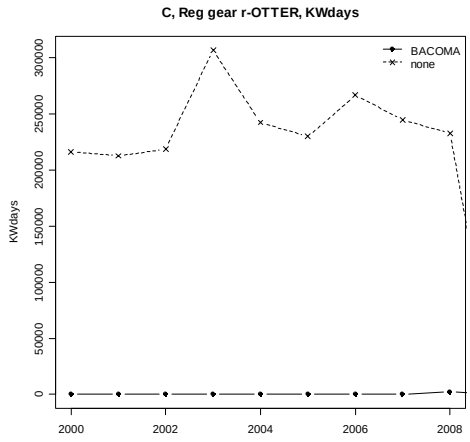

Figure 4.2.10. Area C Baltic: Trend in nominal effort by special conditions, 2000-2008 (Kw *days at sea). **Note that these figures are without data from Poland and with limited data from Estonia and Lithuania.**

4.3. Trends in Baltic cod catch estimates in weight and numbers at age by gear category, sub-area and member state 2003 - 2008

The following tables list the landings and discards for cod by gear category, sub-area and member state (Table 4.3.1) as well as aggregated over member states (Table 4.3.2). Discard rates per year, gear category and sub-area can be found in table 4.3.3. A detailed list of catches and discard estimates by age can be found in Table 4.3.4. Figures on landings and discards for the most important gear categories catching cod were also provided (Figure 4.3.1). A full set of figures for all gear categories will be made available on the web.

The overall problem highlighted in this section is the poor quality of discard data as already outlined in section 3.9.

The overall landings of Baltic cod in 2008 were 17.7% lower compared to 2003 (Table 4.3.2). Discards in 2008 were estimated to be 47.3% lower compared to 2003 but the poor quality of the discard estimates and provision make this observation unreliable.

Most cod landings stem from sub-areas A and B. Sub-areas 27, 28.2 and C only play a very limited role according to available data (Landings 2008 A+B = 47713 tonnes; Landings 2008 27+28.2+C = 78 tonnes).

Discard rates for cod are also highest for sub-areas A and B (Table 4.3.3). This probably reflects on the one hand the distribution of the cod stock, but also a lower availability of discard estimates from sub-areas 27, 28.2 and C. Discard rates were in general higher for otter trawls, demersal seines and pelagic trawls (up to 23% in sub-area A, however, <15% from 2005 onwards) compared to gillnets (<5%). 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. Such a comparison would have been helpful but relies on the submission of detailed information form all member states.

A ranking of gear categories according to cod catches in the different sub-areas can be found in section 4.5.

Table 4.3.1: Landings (t) and discards (t) for cod 2003-2008 by gear category, sub-area and member state. Data qualities are summarised in Section 3.8.4 and Table 3.8.4.1. An "r" in front of the gear type indicates regulated gears in accordance with R(EC) 1098/2007 (see section 3.6). Gear types without an "r" are non-regulated gears.

				Data											
REG_AREA	REG_GEAR	SPECON	COUNTRY	2003 L	2003 D	2004 L	2004 D	2005 L	2005 D	2006 L	2006 D	2007 L	2007 D	2008 L	2008 D
27	GILL	none	FIN	7.9355	0					0.4248	0				
27	GILL	none	SWE					0.014	0			0.002	0		
27	OTTER	none	GER	0.3	0										
27	OTTER	none	SWE					0.004	0						
27	PEL_TRAWL	none	FIN	1.5812	0			2.301	0	0.9145	0				
27	PEL_TRAWL	none	SWE	1.4	0	1.35	0	0.3	0			0.74	0		
27	r-GILL	none	SWE	245.127	0	81.1825	0	20.2694	0	41.3345	0	52.651	0	52.8005	0
27	r-LONGLINE	none	SWE	0.215	0	5.677	0	0.731	0	0.041	0	0.366	0	3.226	0
27	r-OTTER	BACOMA	FIN			4.012	0								
27	r-OTTER	BACOMA	SWE	122.424	0	170.916	0	4.31	0	13.1	0			0.049	0
27	r-OTTER	none	SWE	376.482	0	74.103	0	1.244	0	2.53	0	2.295	0		
27	r-TRAMMEL	none	SWE			0.006	0								
27	TRAMMEL	none	SWE					0.027	0						
28.2	GILL	none	EST							0.01	0				
28.2	GILL	none	FIN			4.8616	0			4.44624	0	1.95644	0.13		
28.2	OTTER	none	EST							0.085	0	0.627	0		
28.2	OTTER	none	SWE			0.055	0	0.13	0	0.98	0				
28.2	PEL_TRAWL	none	EST									0	0		
28.2	PEL_TRAWL	none	FIN					3.894	0	0.1652	0				
28.2	PEL_TRAWL	none	SWE	0.17	0	0.03	0	1.252	0			0.5	0		
28.2	r-GILL	none	SWE	36.702	0	13.538	0	36.716	0	18.063	0	3.732	0	7.21	0
28.2	r-LONGLINE	none	FIN					0.76818	0						
28.2	r-LONGLINE	none	SWE			0.002	0			0.45	0				
28.2	r-OTTER	BACOMA	FIN	0.236	0										
28.2	r-OTTER	BACOMA	SWE	1.99	0			2	0			4	0		
28.2	r-OTTER	none	SWE	11.79	0	0.042	0	0.7	0						
28.2	r-TRAMMEL	none	SWE					0.025	0	0.222	0	0.375	0	0.82	0
A	DEM_SEINE	none	DEN			0.00236	0			6.35902	0				
A	DREDGE	none	DEN	1.57782857	0										
A	GILL	none	DEN	66.46527	0	34.566802	0	42.0391831	0	4.195195	0	16.4351415	0	0.34574	0
A	GILL	none	EST							78.412	0	51.672	0	112.344	0
A	GILL	none	FIN							0.21476	0				
A	GILL	none	GER	7.339	0	0.164	0	1.335	0	0.939	0	0.326	0	0.304	0
A	GILL	none	SWE	0.1795	0	0.013	0	0.5505	0	0.419	0	0.561	0	0.065	0
A	none	none	DEN	27.88252	0	25.79952	0	15.50048	0	10.80408	0	12.399676	0	5.103854	0
A	none	none	SWE	0.008	0	0.104	0	14.852	0	4.42	0	25.23	0	14.8045	0
A	OTTER	none	DEN	95.6667047	0	62.4623957	0	110.621335	0	120.235889	0	46.77461	0	21.748698	0
A	OTTER	none	GER	59.267	0	24.603	0	81.919	0	63.116	0	39.123	0	57.33	0
A	OTTER	none	SWE	10.52	0	0.91	0	0.06	0	0.975	0	0.45	0		
A	PEL_TRAWL	none	DEN	26.82789	0	25.702642	0	77.5152805	0	86.631352	0	42.654876	0	26.22078	0
A	PEL_TRAWL	none	EST									9.872	0		
A	PEL_TRAWL	none	FIN	2.37062	0	8.3544	0	2.22548	0						
A	PEL_TRAWL	none	GER	25.503	0	21.585	0.253	68.641	0	77.912	0	49.678	0	46.671	0
A	PEL_TRAWL	none	SWE	65.71	0	60.38	1	70.934	0	53.235	0	30.863	0	26.802	0
A	POTS	none	DEN							4.46748	0	1.92222	0	0.08968	0
A	POTS	none	GER			2.54	0	0.035	0	0.705	0	0.017	0	0.094	0
A	POTS	none	SWE	0.695	0	0.121	0					0.0315	0	0.062	0
A	r-BEAM	none	DEN	2.16016803	0										
A	r-BEAM	none	GER	0.592	0			0.889	0					9.28	0
A	r-DEM_SEINE	BACOMA	GER							54.655	0	142.862	0	250.269	0
A	r-DEM_SEINE	none	DEN	1170.87254	103.155386	1077.9514	118.19466	754.065297	68.1939784	1189.06659	89.4833989	997.51274	91.0012472	972.762787	2.14242431
A	r-DEM_SEINE	none	GER			6.139	0	38.778	5						
A	r-GILL	none	DEN	1235.52296	19	1179.27774	12	1185.27836	43	1079.72866	0	929.227301	0	898.245692	0
A	r-GILL	none	GER	1165.405	17.848	669.754	12.133	702.922	25	980.66	0.177	991.641	0	1005.08	0
A	r-GILL	none	LAT	124.169	1	158.253	1	405.708	19.2	579.865	1	89.703	0	29.666	0
A	r-GILL	none	POL	535.09	8	361.8762	8	462.945	18	453.4696	0	912.7186	0	660.4437	0
A	r-GILL	none	SWE	896.366	14.4564867	795.506	8.6518032	760.33	29.9266974	714.987	0	752.453	0	725.0308	0
A	r-LONGLINE	none	DEN	184.495019	2	172.332024	2	99.2206266	4	72.098	0	101.95613	0	5.95192	0
A	r-LONGLINE	none	FIN			14.80546	0							1.4396	0.025
A	r-LONGLINE	none	GER	16.507	0	25.987	2	51.814	3	16.9	0	13.202	0	11.981	0
A	r-LONGLINE	none	POL	3.66	0	32.9117	2	257.143	14	128.4118	0	265.2172	0	74.3626	0
A	r-LONGLINE	none	SWE	23.995	0.32285973	108.047	6.46919668	176.4054	6.26128716	92.388	0	52.537	0	52.833	0
A	r-OTTER	BACOMA	FIN	57.20522	0	3.5931	0			242.0534	0	220.11012	0	157.98076	0
A	r-OTTER	BACOMA	GER							4923.29	412.635	4898.392	508.875	3124.47	301.716
A	r-OTTER	BACOMA	LAT							0.853	0	172.839	21		
A	r-OTTER	BACOMA	POL	27.64	0	132.6601	13	312.14	0.67526538	177.3648	16	1180.7703	104	610.6844	46
A	r-OTTER	BACOMA	SWE	577.409	0	670.378	36.4642154	572.751	2	1163.5348	66.860497	1426.635	194	1228.098	52.8640096
A	r-OTTER	none	DEN	6188.66105	1086.75402	5973.35852	1126.8457	5360.22875	1183.53936	5413.20959	794.29045	5300.45422	614.023828	4191.76507	446.986236
A	r-OTTER	none	GER	4004.233	1321.706	3981.663	533.196	4704.233	1146.397	24.711	4	8.85	0	18.203	1
A	r-OTTER	none	LAT	2.258	0			57.284	13						
A	r-OTTER	none	SWE	281.429	77	84.814	11.2168523	61.607	14	53.088	1.96379024	97.906	11	28.713	0.88679902
A	r-PEL_TRAWL	BACOMA	GER							77.32	0	186.993	0	4.751	0
A	r-PEL_TRAWL	BACOMA	POL	1.95812164	0	10.2157	0	61.001	0.32363636	41.3096	0	12.3463	0	15.1906	0
A	r-PEL_TRAWL	none	DEN	34.9666239	1	12.330292	0	36.5829192	0	45.35389	0	18.483166	0	7.27706	0
A	r-PEL_TRAWL	none	GER	49.896	1.229	11.584	0	36.084	0	0.022	0				
A	r-PEL_TRAWL	none	SWE			8.29	0.13400266	4.6	0	7.332	0.16540732			1.9	0.06359542
A	r-TRAMMEL	none	DEN	270.398416	4	238.40779	3	310.14648	12	352.09017	0	324.925672	0	297.986146	0
A	r-TRAMMEL	none	GER	2.31	0	1.751	0	5.663	0	1.783	0	17.569	0	8.299	0
A	r-TRAMMEL	none	SWE	8.911	0.30334467	0.644	0.0098858	2.293	0.12457734	0.1675	0	0.08	0	0.857	0
A	TRAMMEL	none	DEN	0.54752	0	0.34574	0	5.2746	0					0.86612	0

Table 4.3.1 continued

B	DREDGE	none	DEN	6.91817143	0											5.81622	0
B	GILL	none	DEN	24.4083	0	47.17994	0	1.24372	0	0.72098	0	2.84498	0	6.87232	0
B	GILL	none	EST							265.736	0	228.814	2	144.705	1
B	GILL	none	FIN	552.30962	0.502	477.25572	0.808	94.1286	0.01	61.19126	0.08	47.63424	0.68	143.83256	1.76
B	GILL	none	SWE					0.014	0			0.002	0		
B	none	none	DEN	5.32298	0	2.35646	0	16.80202	0	2.70928	0				
B	none	none	SWE	1.715	0	5.185	0	3.432	0	4.011	0	5.502	0	3.566	0
B	OTTER	none	DEN	47.9910169	0	68.4344059	0	73.1837415	0	33.1755427	4	9.66302	0	2.5842	0
B	OTTER	none	EST							24.799	0	61.891	0		
B	OTTER	none	GER	0.5	0									0.2	0
B	OTTER	none	LAT	4.964	0										
B	OTTER	none	SWE	10.424	0	24.396	0	21.521	0	14.7541	1.36557153	15.5255	0	16.187	0
B	PEL_TRAWL	none	DEN	33.591897	0	34.8856616	0	94.8410655	0	21.79696	0	23.990344	0	5.74542	0
B	PEL_TRAWL	none	EST							239.389	0	485.678	0	581.504	0
B	PEL_TRAWL	none	FIN	15.74592	0	34.44066	0	20.79042	0	9.9002	0	23.58348	0	25.24256	0
B	PEL_TRAWL	none	GER	8.306	0	4.901	0					0.15	0		
B	PEL_TRAWL	none	LAT	36.594	0	74.3945	0	78.058	0	65.108	0	220.695	0	153.929	0
B	PEL_TRAWL	none	SWE	28.648	0	104.709	0	96.335	0	36.18	0	100.102	0	78.84	0
B	POTS	none	SWE											1.0424	0
B	r-BEAM	none	DEN	10.393852	0										
B	r-DEM_SEINE	BACOMA	GER							66.313	0	57.855	0	93.945	0
B	r-DEM_SEINE	none	DEN	7.2146683	0	0.29219048	0	196.446629	0	82.0750733	0	44.81994	0		
B	r-DEM_SEINE	none	GER			0.626	0								
B	r-GILL	none	DEN	1014.99111	27	782.761152	27	509.16718	12	434.43116	13	455.83282	27	496.50742	12
B	r-GILL	none	FIN									0.7375	0	9.82468	0
B	r-GILL	none	GER	54.745	2	20.347	1	143.521	5	12.663	1	1.551	0	8.14	0
B	r-GILL	none	LAT	3317.149	120.2	3453.459	182.6	2257.062	70.7	1911.082	69.122	1759.199	138.67	2003.121	67.01
B	r-GILL	none	LIT							626.263837	31.389	233.652522	8.32968123	93.35	1.867
B	r-GILL	none	POL	5129.17675	143	5515.3898	208	3916.154	113.686135	3971.8108	136.481088	2249.2075	99.0757389	3119.3092	55.4287707
B	r-GILL	none	SWE	3117.3335	66.5212268	2102.8067	30.6095439	1287.4479	34.1391774	1076.3143	35	889.927	49	1318.3533	38
B	r-LONGLINE	none	DEN	444.150925	17	372.652156	5	300.019393	9	241.53538	0	117.25188	0	87.61618	6
B	r-LONGLINE	none	FIN			23.1103	0.09	2.42608	0	9.98398	0	17.35544	0	3.6934	0
B	r-LONGLINE	none	GER			0.017	0	1.355	0	0.037	0			0.07	0
B	r-LONGLINE	none	POL	1706.63291	68	2154.6126	24	1855.248	40.9083025	2655.663	0	1437.2589	0	956.906	103.199475
B	r-LONGLINE	none	SWE	701.111	27.9100312	833.208	9.78203683	668.6155	19.5585374	624.5635	0	352.921	0	448.5013	23
B	r-OTTER	BACOMA	FIN	534.97778	0	323.56898	0	162.03406	0	346.41614	0	542.91446	0	466.50356	0
B	r-OTTER	BACOMA	GER							1214.044	178	596.354	95	1960.412	108.309
B	r-OTTER	BACOMA	LAT							1771.256	53.819	1136.445	29.036	1714.336	69.524
B	r-OTTER	BACOMA	POL	8270.18671	535.775974	5403.7451	91.7171451	5316.279	63.265309	6289.7209	514.199118	3401.6271	303.627628	4467.9504	150.004108
B	r-OTTER	BACOMA	SWE	2990.849	132.9	6213.604	225.082871	4045.422	627.176045	4893.7795	1326.63308	5595.648	1181.69181	5543.4375	472.978622
B	r-OTTER	none	DEN	5907.22898	379.705605	4337.26275	368.314808	4321.93903	381.664368	6956.3497	713.769206	5272.27564	367.558002	6480.20219	413.764812
B	r-OTTER	none	FIN											20.15676	0
B	r-OTTER	none	GER	1290.246	84.271	1067.465	86.396	1588.295	105					25.56	2
B	r-OTTER	none	LAT	874.7365	45.3	796.593	48.4	1126.161	63						
B	r-OTTER	none	LIT					2987.804	193.302	1679.21202	112.608	771.996	50.389	1605.16	104.95627
B	r-OTTER	none	SWE	3278.846	554.740923	917.031	54.5967713	455.118	71.9673321	460.089	123.252997	511.992	105.891123	247.7223	26.0544361
B	r-PEL_TRAWL	BACOMA	GER							729.7	8	870.076	80.335	259.58	10.934
B	r-PEL_TRAWL	BACOMA	LAT							139.569	1	751.129	28	31.967	1
B	r-PEL_TRAWL	BACOMA	POL	354.746261	0	1508.3474	13.4705133	585.639	14.1551792	1373.2261	14.3871242	1510.5981	14.5103019	176.582	7.43913303
B	r-PEL_TRAWL	none	DEN	167.762096	0	404.429188	4	196.790401	8	595.54718	113	355.837732	74	13.97828	2
B	r-PEL_TRAWL	none	GER			1565.951	22.602	578.286	21.715						
B	r-PEL_TRAWL	none	LAT	41.456	0	348.395	8	5.853	0						
B	r-PEL_TRAWL	none	SWE			493.993	25.2818267	320.588	12	1595.952	274.699001	1225.602	236.997226	161.974	30.2124671
B	r-TRAMMEL	none	DEN	11.28788	0	7.43518	0	0.02596	0	1.9293	0			20.66298	0
B	r-TRAMMEL	none	SWE			0.006	0.00011541	0.025	0.00069308	0.222	0	0.375	0	0.843	0
B	TRAMMEL	none	SWE	0.148	0	0.272	0	0.027	0						
C	GILL	none	EST							0.014	0				
C	GILL	none	FIN					1.19062	0					0.64074	0.004
C	GILL	none	SWE					1.132	0						
C	OTTER	none	SWE					0.29	0	3.97	0				
C	PEL_TRAWL	none	DEN	0.15738649	0										
C	r-GILL	none	SWE	3.609	0	2.335	0	2.278	0	3.015	0	6.206	0	6.4576	0
C	r-LONGLINE	none	SWE											0.015	0
C	r-OTTER	BACOMA	SWE											0.78	0
Totalt				58069.5979	4862.60185	55883.8128	3334.31995	50319.2906	4473.88988	59027.7386	5111.38073	50903.3593	4435.82158	47784.8035	2560.13016

Table 4.3.2: Landings (t) and discards (t) for cod 2003-2008 by gear category and sub-area. Data qualities are summarised in Section 3.8.4 and Table 3.8.4.1 and 3.9. An "r" in front of the gear type indicates regulated gears in accordance with R(EC) 1098/2007 (see section 3.6). Gear types without an "r" are non-regulated gears.

			Data											
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
27	GILL	none	7.9355	0			0.014	0	0.4248	0	0.002	0		
27	OTTER	none	0.3	0			0.004	0						
27	PEL_TRAWL	none	2.9812	0	1.35	0	2.601	0	0.9145	0	0.74	0		
27	r-GILL	none	245.127	0	81.1825	0	20.2694	0	41.3345	0	52.651	0	52.8005	0
27	r-LONGLINE	none	0.215	0	5.677	0	0.731	0	0.041	0	0.366	0	3.226	0
27	r-OTTER	BACOMA	122.424	0	174.928	0	4.31	0	13.1	0			0.049	0
27	r-OTTER	none	376.482	0	74.103	0	1.244	0	2.53	0	2.295	0		
27	r-TRAMMEL	none			0.006	0								
27	TRAMMEL	none					0.027	0						
28.2	GILL	none			4.8616	0			4.45624	0	1.95644	0.13		
28.2	OTTER	none			0.055	0	0.13	0	1.065	0	0.627	0		
28.2	PEL_TRAWL	none	0.17	0	0.03	0	5.146	0	0.1652	0	0.5	0		
28.2	r-GILL	none	36.702	0	13.538	0	36.716	0	18.063	0	3.732	0	7.21	0
28.2	r-LONGLINE	none			0.002	0	0.76818	0	0.45	0				
28.2	r-OTTER	BACOMA	2.226	0			2	0			4	0		
28.2	r-OTTER	none	11.79	0	0.042	0	0.7	0						
28.2	r-TRAMMEL	none					0.025	0	0.222	0	0.375	0	0.82	0
A	DEM_SEINE	none			0.00236	0			6.35902	0				
A	DREDGE	none	1.577829	0										
A	GILL	none	73.98377	0	34.7438	0	43.92468	0	84.17996	0	68.99414	0	113.0587	0
A	none	none	27.89052	0	25.90352	0	30.35248	0	15.22408	0	37.62968	0	19.90835	0
A	OTTER	none	165.4537	0	87.9754	0	192.6003	0	184.3269	0	86.34761	0	79.0787	0
A	PEL_TRAWL	none	120.4115	0	116.022	1.253	219.3158	0	217.7784	0	133.0679	0	99.69378	0
A	POTS	none	0.695	0	2.661	0	0.035	0	5.17248	0	1.97072	0	0.24568	0
A	r-BEAM	none	2.752168	0			0.889	0					9.28	0
A	r-DEM_SEINE	BACOMA							54.655	0	142.862	0	250.269	0
A	r-DEM_SEINE	none	1170.873	103.1554	1084.09	118.1947	792.8433	73.19398	1189.067	89.4834	997.5127	91.00125	972.7628	2.142424
A	r-GILL	none	3956.553	60.30449	3164.667	41.7848	3517.183	135.1267	3808.71	1.177	3675.743	0	3318.466	0
A	r-LONGLINE	none	228.657	2.32286	354.0832	12.4692	584.583	27.26129	309.7978	0	432.9123	0	146.5681	0.025
A	r-OTTER	BACOMA	662.2542	0	806.6312	49.46422	884.891	2.675265	6507.096	495.4955	7898.746	827.875	5121.233	400.58
A	r-OTTER	none	10476.58	2485.46	10039.84	1671.259	10183.35	2356.936	5491.009	800.2542	5407.21	625.0238	4238.681	448.873
A	r-PEL_TRAWL	BACOMA	1.958122	0	10.2157	0	61.001	0.323636	118.6296	0	199.3393	0	19.9416	0
A	r-PEL_TRAWL	none	84.86262	2.229	32.20429	0.134003	77.26692	0	52.70789	0.165407	18.48317	0	9.17706	0.063595
A	r-TRAMMEL	none	281.6194	4.303345	240.8028	3.009886	318.1025	12.12458	354.0407	0	342.5747	0	307.1421	0
A	TRAMMEL	none	0.54752	0	0.34574	0	5.2746	0					0.86612	0
B	DREDGE	none	6.918171	0									5.81622	0
B	GILL	none	576.7179	0.502	524.4357	0.808	95.38632	0.01	327.6482	0.08	279.2952	2.68	295.4099	2.76
B	none	none	7.03798	0	7.54146	0	20.23402	0	6.72028	0	5.502	0	3.566	0
B	OTTER	none	63.87902	0	92.83041	0	94.70474	0	72.72864	5.365572	87.07952	0	18.9712	0
B	PEL_TRAWL	none	122.8858	0	253.3308	0	290.0245	0	372.3742	0	854.1988	0	845.261	0
B	POTS	none											1.0424	0
B	r-BEAM	none	10.39385	0										
B	r-DEM_SEINE	BACOMA							66.313	0	57.855	0	93.945	0
B	r-DEM_SEINE	none	7.214668	0	0.91819	0	196.4466	0	82.07507	0	44.81994	0		
B	r-GILL	none	12633.4	358.7212	11874.76	449.2095	8113.352	235.5253	8032.565	285.9921	5590.107	322.0754	7048.606	174.3058
B	r-LONGLINE	none	2851.895	112.91	3383.6	38.87204	2827.664	69.46684	3531.783	0	1924.787	0	1496.787	132.1995
B	r-OTTER	BACOMA	11796.01	668.676	11940.92	316.8	9523.735	690.4414	14515.22	2072.651	11272.99	1609.355	14152.64	800.8157
B	r-OTTER	none	11351.06	1064.018	7118.352	557.7076	10479.32	814.9337	9095.651	949.6302	6556.264	523.8381	8378.801	546.7755
B	r-PEL_TRAWL	BACOMA	354.7463	0	1508.347	13.47051	585.639	14.15518	2242.495	23.38712	3131.803	122.8453	468.129	19.37313
B	r-PEL_TRAWL	none	209.2181	0	2812.768	59.88383	1101.517	41.715	2191.499	387.699	1581.44	310.9972	175.9523	32.21247
B	r-TRAMMEL	none	11.28788	0	7.44118	0.000115	0.05096	0.000693	2.1513	0	0.375	0	21.50598	0
B	TRAMMEL	none	0.148	0	0.272	0	0.027	0						
C	GILL	none					2.32262	0	0.014	0			0.64074	0.004
C	OTTER	none					0.29	0	3.97	0				
C	PEL_TRAWL	none	0.157386	0										
C	r-GILL	none	3.609	0	2.335	0	2.278	0	3.015	0	6.206	0	6.4576	0
C	r-LONGLINE	none											0.015	0
C	r-OTTER	BACOMA											0.78	0
Totalt			58069.6	4862.602	55883.81	3334.32	50319.29	4473.89	59027.74	5111.381	50903.36	4435.822	47784.8	2560.13

Table 4.3.3: Discard rates for cod 2003-2008 by gear category and sub-area. Data qualities are summarised in Section 3.8.4 and Table 3.8.4.1 and 3.9. An "r" in front of the gear type indicates regulated gears in accordance with R(EC) 1098/2007 (see section 3.6). Gear types without an "r" are non-regulated gears.

REG_AREA	REG_GEAR	SPECON	2003	2004	2005	2006	2007	2008
27	GILL	none	0	0	0	0	0	0
27	OTTER	none	0	0	0	0	0	0
27	PEL_TRAWL	none	0	0	0	0	0	0
27	r-GILL	none	0	0	0	0	0	0
27	r-LONGLINE	none	0	0	0	0	0	0
27	r-OTTER	BACOMA	0	0	0	0	0	0
27	r-OTTER	none	0	0	0	0	0	0
27	r-TRAMMEL	none	0	0	0	0	0	0
27	TRAMMEL	none	0	0	0	0	0	0
28.2	GILL	none	0	0	0	0	0.06644722	0
28.2	OTTER	none	0	0	0	0	0	0
28.2	PEL_TRAWL	none	0	0	0	0	0	0
28.2	r-GILL	none	0	0	0	0	0	0
28.2	r-LONGLINE	none	0	0	0	0	0	0
28.2	r-OTTER	BACOMA	0	0	0	0	0	0
28.2	r-OTTER	none	0	0	0	0	0	0
28.2	r-TRAMMEL	none	0	0	0	0	0	0
A	DEM_SEINE	none	0	0	0	0	0	0
A	DREDGE	none	0	0	0	0	0	0
A	GILL	none	0	0	0	0	0	0
A	none	none	0	0	0	0	0	0
A	OTTER	none	0	0	0	0	0	0
A	PEL_TRAWL	none	0	0.01079967	0	0	0	0
A	POTS	none	0	0	0	0	0	0
A	r-BEAM	none	0	0	0	0	0	0
A	r-DEM_SEINE	BACOMA	0	0	0	0	0	0
A	r-DEM_SEINE	none	0.088101294	0.10902657	0.09231834	0.075255162	0.09122816	0.00220241
A	r-GILL	none	0.015241673	0.01320354	0.03841901	0.000309028	0	0
A	r-LONGLINE	none	0.010158707	0.03521544	0.04663373	0	0	0.00017057
A	r-OTTER	BACOMA	0	0.06132197	0.00302327	0.076146947	0.10481094	0.07821944
A	r-OTTER	none	0.237239611	0.16646274	0.23144994	0.145739026	0.11559081	0.10589922
A	r-PEL_TRAWL	BACOMA	0	0	0.00530543	0	0	0
A	r-PEL_TRAWL	none	0.02626598	0.00416102	0	0.003138189	0	0.00692982
A	r-TRAMMEL	none	0.01528071	0.01249938	0.03811532	0	0	0
A	TRAMMEL	none	0	0	0	0	0	0
B	DREDGE	none	0	0	0	0	0	0
B	GILL	none	0.000870443	0.0015407	0.00010484	0.000244164	0.00959558	0.00934295
B	none	none	0	0	0	0	0	0
B	OTTER	none	0	0	0	0.073775219	0	0
B	PEL_TRAWL	none	0	0	0	0	0	0
B	POTS	none	0	0	0	0	0	0
B	r-BEAM	none	0	0	0	0	0	0
B	r-DEM_SEINE	BACOMA	0	0	0	0	0	0
B	r-DEM_SEINE	none	0	0	0	0	0	0
B	r-GILL	none	0.028394681	0.03782893	0.02902935	0.03560408	0.05761525	0.02472911
B	r-LONGLINE	none	0.039591232	0.01148837	0.02456687	0	0	0.08832218
B	r-OTTER	BACOMA	0.056686606	0.02653062	0.07249691	0.142791614	0.14276209	0.0565842
B	r-OTTER	none	0.093737304	0.07834785	0.07776592	0.104404867	0.07989888	0.06525701
B	r-PEL_TRAWL	BACOMA	0	0.00893064	0.02417049	0.010429064	0.0392251	0.04138418
B	r-PEL_TRAWL	none	0	0.02129	0.03787049	0.176910402	0.19665449	0.18307502
B	r-TRAMMEL	none	0	1.551E-05	0.01360055	0	0	0
B	TRAMMEL	none	0	0	0	0	0	0
C	GILL	none	0	0	0	0	0	0.00624278
C	OTTER	none	0	0	0	0	0	0
C	PEL_TRAWL	none	0	0	0	0	0	0
C	r-GILL	none	0	0	0	0	0	0
C	r-LONGLINE	none	0	0	0	0	0	0
C	r-OTTER	BACOMA	0	0	0	0	0	0

Table 4.3.4: Cod landings (L) and discards (D) at ages 1-9 (‘000) by gear category and sub-area 2003-2008. An “r” in front of the gear type indicates regulated gears in accordance with R(EC) 1098/2007 (see section 3.6). Gear types without an “r” are non-regulated gears. Data on age distribution were available for sub-areas A and B only.

ANNEX	REG_AREA	REG_GEAR	SPECON	SPECIES	AGE	2003_L	2003_D	2004_L	2004_D	2005_L	2005_D	2006_L	2006_D	2007_L	2007_D	2008_L	2008_D
Bal	A	DEM_SEINE	none	COD	1							0.502					
Bal	A	DEM_SEINE	none	COD	2							1.996					
Bal	A	DEM_SEINE	none	COD	3							2.729					
Bal	A	DEM_SEINE	none	COD	4							0.283					
Bal	A	DEM_SEINE	none	COD	5							0.056					
Bal	A	DEM_SEINE	none	COD	6							0.022					
Bal	A	DEM_SEINE	none	COD	7							0.011					
Bal	A	DEM_SEINE	none	COD	8							0.006					
Bal	A	DEM_SEINE	none	COD	9							0.002					
Bal	A	DREDGE	none	COD	1	0.23											
Bal	A	DREDGE	none	COD	2	1.749											
Bal	A	DREDGE	none	COD	3	0.202											
Bal	A	DREDGE	none	COD	4												
Bal	A	DREDGE	none	COD	5												
Bal	A	DREDGE	none	COD	6												
Bal	A	DREDGE	none	COD	7												
Bal	A	DREDGE	none	COD	8												
Bal	A	DREDGE	none	COD	9												
Bal	A	GILL	none	COD	1	2.451		0.843		0.981		0.078		0.325		0.007	
Bal	A	GILL	none	COD	2	16.902		3.906		12.429		11.492		12.393		4.297	
Bal	A	GILL	none	COD	3	15.108		13.211		5.791		48.291		12.295		8.566	
Bal	A	GILL	none	COD	4	6.849		2.758		7.579		2.316		14.985		6.509	
Bal	A	GILL	none	COD	5	2.003		0.822		1.523		1.198		3.846		5.915	
Bal	A	GILL	none	COD	6	1.042		0.173		0.722		0.153		0.768		3.479	
Bal	A	GILL	none	COD	7	0.317		0.085		0.218		0.029		0.104		1.143	
Bal	A	GILL	none	COD	8	0.034		0		0.099		0.025		0.059		0.52	
Bal	A	GILL	none	COD	9					0.001		0.002		0.023			
Bal	A	none	none	COD	1	3.108		0.969		1.435		0.422		0.155		0.099	
Bal	A	none	none	COD	2	15.023		6.028		18.876		4.264		11.225		3.404	
Bal	A	none	none	COD	3	5.601		15.329		4.399		8.416		9.727		5.084	
Bal	A	none	none	COD	4	1.453		1.304		3.566		0.521		11.329		3.185	
Bal	A	none	none	COD	5	0.329		0.242		0.97		0.17		1.666		2.169	
Bal	A	none	none	COD	6	0.192		0.045		0.266		0.025		0.185		1.219	
Bal	A	none	none	COD	7	0.055		0.016		0.101		0.006		0.02		0.27	
Bal	A	none	none	COD	8	0.001		0.001		0.033		0.007		0.015		0.088	
Bal	A	none	none	COD	9					0.001		0.001		0.009		0	
Bal	A	OTTER	none	COD	1	22.641		9.006		6.863		0.411		0.077		0.018	
Bal	A	OTTER	none	COD	2	96.305		22.696		119.301		15.905		13.528		1.405	
Bal	A	OTTER	none	COD	3	41.598		42.187		30.113		132.291		15.331		6.159	
Bal	A	OTTER	none	COD	4	8.835		5.161		29.357		6.208		23.3		4.667	
Bal	A	OTTER	none	COD	5	1.308		1.276		6.167		5.199		4.464		2.553	
Bal	A	OTTER	none	COD	6	0.703		0.28		1.678		0.76		1.323		1.087	
Bal	A	OTTER	none	COD	7	0.196		0.156		0.32		0.157		0.147		0.212	
Bal	A	OTTER	none	COD	8	0.006		0		0.167		0.142		0.098		0.152	
Bal	A	OTTER	none	COD	9					0.009		0.012		0.051		0.004	
Bal	A	PEL_TRAWL	none	COD	1	7.375		4.315	0.482	17.49		1.114		0.071		0.73	
Bal	A	PEL_TRAWL	none	COD	2	58.149		22.459	0.097	103.949		22.127		10.547		6.769	
Bal	A	PEL_TRAWL	none	COD	3	37.806		43.028		20.575		135.497		16.437		18.122	
Bal	A	PEL_TRAWL	none	COD	4	9.197		5.543		25.413		8.018		35.571		14.764	
Bal	A	PEL_TRAWL	none	COD	5	1.72		1.486		5.977		5.672		7.375		10.06	
Bal	A	PEL_TRAWL	none	COD	6	0.939		0.34		2.672		1.051		2.089		5.013	
Bal	A	PEL_TRAWL	none	COD	7	0.438		0.256		0.558		0.3		0.279		1.417	
Bal	A	PEL_TRAWL	none	COD	8	0.048		0		0.365		0.254		0.174		0.479	
Bal	A	PEL_TRAWL	none	COD	9					0.013		0.042		0.091			
Bal	A	POTS	none	COD	1									0.02		0.004	
Bal	A	POTS	none	COD	2							0.181		0.537		0.018	
Bal	A	POTS	none	COD	3							3.224		0.605		0.026	
Bal	A	POTS	none	COD	4							0.186		0.461		0.016	
Bal	A	POTS	none	COD	5							0.109		0.095		0.005	
Bal	A	POTS	none	COD	6							0.017		0.014		0.002	
Bal	A	POTS	none	COD	7							0.005		0.001		0.001	
Bal	A	POTS	none	COD	8							0.01		0		0	
Bal	A	POTS	none	COD	9							0.001		0		0	
Bal	A	r-BEAM	none	COD	1												
Bal	A	r-BEAM	none	COD	2	1.328											
Bal	A	r-BEAM	none	COD	3	1.664											
Bal	A	r-BEAM	none	COD	4	0.282											
Bal	A	r-BEAM	none	COD	5	0.022											
Bal	A	r-BEAM	none	COD	6	0.011											
Bal	A	r-BEAM	none	COD	7	0.005											
Bal	A	r-BEAM	none	COD	8	0.001											
Bal	A	r-BEAM	none	COD	9												

Table 4.3.4: continued

Bal	A	r-DEM_SEINE	none	COD	1	141.204	66.76	95.06	46.595	52.578	53.282	31.536	25.94	6.223	37.77	8.138	7.82
Bal	A	r-DEM_SEINE	none	COD	2	624.584	188.94	284.44	226.002	606.478	127.706	189.124	163.77	284.843	164.45	102.221	1.58
Bal	A	r-DEM_SEINE	none	COD	3	362.685	62.46	664.941	82.039	124.543	43.642	898.078	66.55	289.028	64.84	353.327	0.21
Bal	A	r-DEM_SEINE	none	COD	4	76.437	7.25	41.701	9.316	110.138	5.126	44.929	8.04	308.714	7.72	232.363	0.02
Bal	A	r-DEM_SEINE	none	COD	5	8.071	0.81	7.214	1.182	14.917	0.723	15.465	1.25	61.053	1.15	129.239	
Bal	A	r-DEM_SEINE	none	COD	6	4.277	0.07	0.977	0.081	3.341	0.04	2.563	0.04	10.348	0.03	49.197	
Bal	A	r-DEM_SEINE	none	COD	7	1.084	0.01	0.526	0.01	0.546		0.796		1.523		12.656	
Bal	A	r-DEM_SEINE	none	COD	8	0.101		0.001		0.266		0.389		0.535		1.741	
Bal	A	r-DEM_SEINE	none	COD	9					0.01		0.16		0.278		0.152	
Bal	A	r-GILL	none	COD	1	270.563	16.133	40.92	36.869	42.171	123.771	22.472		2.858		1.483	
Bal	A	r-GILL	none	COD	2	1377.584	74.204	381.4	12.454	1199.87	168.825	602.789	0.38	196.979		207.979	
Bal	A	r-GILL	none	COD	3	1198.591	21.902	1168.109	5.983	613.18	13.24	1699.12		523.545		482.161	
Bal	A	r-GILL	none	COD	4	350.169	1.423	376.82	0.65	422.625	0.519	187.89		674.805		286.136	
Bal	A	r-GILL	none	COD	5	68.84	0.026	56.842	0.02	118.566		99.246		111.222		216.418	
Bal	A	r-GILL	none	COD	6	31.413	0.049	13.17		29.022		18.128		34.11		64.3	
Bal	A	r-GILL	none	COD	7	7.906		3.588		10.173		4.071		7.185		20.376	
Bal	A	r-GILL	none	COD	8	0.636		0.518		4.452		0.854		1.37		10.396	
Bal	A	r-GILL	none	COD	9	0.154				0.157		0.431		0.491		0.454	
Bal	A	r-LONGLINE	none	COD	1	3.303	0.066	5.06	20.213	2.324	34.107	0.11		0.377		0.038	
Bal	A	r-LONGLINE	none	COD	2	74.177	3.115	66.206	7.146	231.168	40.341	35.914		41.474		44.627	
Bal	A	r-LONGLINE	none	COD	3	104.458	1.977	178.556	3.179	227.154	4.036	156.475		99.043		53.118	
Bal	A	r-LONGLINE	none	COD	4	27.182	0.013	45.246	0.066	113.22	0.278	19.661		94.076		18.993	
Bal	A	r-LONGLINE	none	COD	5	3.772	0	4.645	0.001	36.533		9.537		22.499		13.662	
Bal	A	r-LONGLINE	none	COD	6	1.809	0	1.189		3.556		2.272		6.168		1.537	
Bal	A	r-LONGLINE	none	COD	7	0.417		0.319		1.369		0.472		1.429		0.349	
Bal	A	r-LONGLINE	none	COD	8	0.025		0.045		0.379		0.437		0.723		0.185	
Bal	A	r-LONGLINE	none	COD	9	0.004				0.012		0.026		0.32		0.013	
Bal	A	r-OTTER	BACOMA	COD	1				51.078	16.309		4.574	169.723	18.951	60.806		58.88
Bal	A	r-OTTER	BACOMA	COD	2	204.272		30.837	23.106	539.593		2910.055	237.038	1223.969	621.778	908.42	385.298
Bal	A	r-OTTER	BACOMA	COD	3	259.165		179.43	1.772	186.935		4140.104	498.027	3599.99	3.197	1536.533	252.905
Bal	A	r-OTTER	BACOMA	COD	4	30.956		81.871	0.007	54.112		378.295		2557.604	3.752	806.71	40.948
Bal	A	r-OTTER	BACOMA	COD	5	3.356		9.107		15.139		92.93		154.535		686.449	2.658
Bal	A	r-OTTER	BACOMA	COD	6	0.41		1.443		1.625		26.236		39.797		41.978	
Bal	A	r-OTTER	BACOMA	COD	7	0.137				0.378		3.452		15.764		5.945	
Bal	A	r-OTTER	BACOMA	COD	8					0.317		1.911		2.221		3.778	
Bal	A	r-OTTER	BACOMA	COD	9			0.103		0.006		0.417		0.897		0.814	
Bal	A	r-OTTER	none	COD	1	859.034	2013.878	591.86	1280.23	304.142	2028.542	97.983	375.27	34.797	336.602	46.379	246.331
Bal	A	r-OTTER	none	COD	2	5208.922	4855.533	2599.144	3058.873	6019.579	3828.348	852.839	1420.555	1292.966	1105.279	553.35	829.618
Bal	A	r-OTTER	none	COD	3	3211.994	1288.578	5886.999	896.221	1604.827	1084.322	3859.029	510.329	1296.076	407.489	1130.251	299.909
Bal	A	r-OTTER	none	COD	4	763.953	131.622	579.79	102.696	1473.85	168.372	207.131	68.366	1558.456	57.599	760.103	45.31
Bal	A	r-OTTER	none	COD	5	125.801	12.385	111.302	13.403	320.323	28.858	131.987	10.381	281.643	9.596	473.885	7.241
Bal	A	r-OTTER	none	COD	6	70.675	0.639	23.632	0.55	99.281	2.466	20.154	0.691	75.696	0.649	193.074	0.51
Bal	A	r-OTTER	none	COD	7	21.906	0.205	13.577	0.145	34.531	0.049	4.104		7.314		48.324	0.14
Bal	A	r-OTTER	none	COD	8	0.972	4.028	0.296	2.476	11.521	4.835	1.177	0.01	3.282		23.012	0.01
Bal	A	r-OTTER	none	COD	9			0.031		0.252		0.448		1.341		0.191	
Bal	A	r-PEL_TRAWL	none	COD	1	21.628	3.324	1.565	0.237	0.983		2.178	0.004	0.346		0.01	0.045
Bal	A	r-PEL_TRAWL	none	COD	2	51.007	0.626	4.686	0.107	53.526		19.163	0.158	5.203		1.5	0.12
Bal	A	r-PEL_TRAWL	none	COD	3	8.516		7.209	0.008	14.618		32.135	0.262	4.939		1.695	0.029
Bal	A	r-PEL_TRAWL	none	COD	4	1.967		1.369	0	11.314		1.849		5.486		1.115	
Bal	A	r-PEL_TRAWL	none	COD	5	0.133		0.154		3.042		0.757		1.186		1.056	
Bal	A	r-PEL_TRAWL	none	COD	6	0.054		0.036		0.733		0.106		0.219		0.402	
Bal	A	r-PEL_TRAWL	none	COD	7	0.004		0.007		0.211		0.016		0.023		0.113	
Bal	A	r-PEL_TRAWL	none	COD	8			0		0.082		0.009		0.007		0.055	
Bal	A	r-PEL_TRAWL	none	COD	9			0		0.001		0.002		0.003			
Bal	A	r-TRAMMEL	none	COD	1	6.706	0.938	3.335	0.025	0.872	10.006	1.314		0.133		0.236	
Bal	A	r-TRAMMEL	none	COD	2	43.138	5.042	12.41	0.006	27.411	20.687	14.777		7.852		4.583	
Bal	A	r-TRAMMEL	none	COD	3	39.294	2.29	47.983	0.001	19.248	2.221	110.968		13.413		15.181	
Bal	A	r-TRAMMEL	none	COD	4	29.167	0.104	20.895	0	47.968	0.079	18.611		62.801		20.799	
Bal	A	r-TRAMMEL	none	COD	5	11.029	0.002	10.452	0	13.061		23.024		19.977		27.119	
Bal	A	r-TRAMMEL	none	COD	6	6.756	0.003	2.481		8.596		4.498		10.166		13.726	
Bal	A	r-TRAMMEL	none	COD	7	2.526		0.975		2.429		0.996		1.191		3.818	
Bal	A	r-TRAMMEL	none	COD	8	0.071		0.05		1.441		0.249		0.617		3.33	
Bal	A	r-TRAMMEL	none	COD	9	0				0.015		0.075		0.222		0.046	
Bal	A	TRAMMEL	none	COD	1	0.066				0.237							
Bal	A	TRAMMEL	none	COD	2	0.424		0.004		1.818							
Bal	A	TRAMMEL	none	COD	3	0.082		0.079		0.494						0.006	
Bal	A	TRAMMEL	none	COD	4	0.008		0.039		0.918						0.035	
Bal	A	TRAMMEL	none	COD	5	0.001		0.016		0.131						0.075	
Bal	A	TRAMMEL	none	COD	6	0		0.004		0.062						0.037	
Bal	A	TRAMMEL	none	COD	7			0.001		0.002						0.007	
Bal	A	TRAMMEL	none	COD	8					0.003						0.013	
Bal	A	TRAMMEL	none	COD	9					0							

Table 4.3.4: continued

Bal	B	DREDGE	none	COD	1										
Bal	B	DREDGE	none	COD	2	1.245									0.1
Bal	B	DREDGE	none	COD	3	6.891									0.952
Bal	B	DREDGE	none	COD	4	0.889									1.931
Bal	B	DREDGE	none	COD	5	0.126									2.688
Bal	B	DREDGE	none	COD	6										1.002
Bal	B	DREDGE	none	COD	7										0.113
Bal	B	DREDGE	none	COD	8										0.007
Bal	B	DREDGE	none	COD	9										0.006
Bal	B	GILL	none	COD	1										
Bal	B	GILL	none	COD	2	13.278		23.831		6.132		4.027			2.448
Bal	B	GILL	none	COD	3	170.578		159.457		30.322		35.957		9.482	56.923
Bal	B	GILL	none	COD	4	104.439		154.714		29.849		17.121		51.105	88.171
Bal	B	GILL	none	COD	5	30.216		26.633		5.184		3.952		33.937	64.619
Bal	B	GILL	none	COD	6	3.705		6.439		0.532		0.594		3.8	37.993
Bal	B	GILL	none	COD	7	0.783		2.62		0.132		0.055		0.259	7.314
Bal	B	GILL	none	COD	8			0.527		0.016		0.017		0.11	0.521
Bal	B	GILL	none	COD	9			0.133		0.006		0.007		0.004	0.006
Bal	B	none	none	COD	1										
Bal	B	none	none	COD	2	2.788		0.507		2.061		0.461			
Bal	B	none	none	COD	3	2.871		1.728		8.641		2.53			
Bal	B	none	none	COD	4	0.54		1.33		8.82		0.891			
Bal	B	none	none	COD	5	0.14		0.406		1.533		0.176			
Bal	B	none	none	COD	6	0.043		0.363		0.168		0.027			
Bal	B	none	none	COD	7	0.01		0.181		0.054		0.005			
Bal	B	none	none	COD	8	0.002		0.019		0.007		0.001			
Bal	B	none	none	COD	9			0		0.003		0.001			
Bal	B	OTTER	none	COD	1								0.002		
Bal	B	OTTER	none	COD	2	4.33		5.399		12.157		9.455	1.431	1.517	0.206
Bal	B	OTTER	none	COD	3	46.638		41.655		35.263		47.389	2.343	15.311	2.801
Bal	B	OTTER	none	COD	4	14.24		30.614		37.325		14.555	0.02	45.56	4.504
Bal	B	OTTER	none	COD	5	2.08		4.146		8.401		3.191		20.327	4.719
Bal	B	OTTER	none	COD	6	0.673		1.589		1.709		0.795		2.436	1.919
Bal	B	OTTER	none	COD	7	0.227		0.664		0.714		0.292		0.32	0.303
Bal	B	OTTER	none	COD	8	0.017		0.103		0.107		0.077		0.404	0.052
Bal	B	OTTER	none	COD	9			0.019		0.042		0.041		0.037	0.012
Bal	B	PEL_TRAWL	none	COD	1										
Bal	B	PEL_TRAWL	none	COD	2	16.994		20.906		38		55.305		3.126	8.885
Bal	B	PEL_TRAWL	none	COD	3	65.161		117.881		111.581		307.451		86.103	202.519
Bal	B	PEL_TRAWL	none	COD	4	25.388		83.61		108.654		93.715		422.562	313.275
Bal	B	PEL_TRAWL	none	COD	5	7.467		10.359		21.99		16.472		273.424	237.397
Bal	B	PEL_TRAWL	none	COD	6	2.031		3.884		4.834		3.257		35.315	129.568
Bal	B	PEL_TRAWL	none	COD	7	0.691		1.611		2.085		0.909		4.92	23.974
Bal	B	PEL_TRAWL	none	COD	8	0.072		0.245		0.331		0.241		2.898	2.214
Bal	B	PEL_TRAWL	none	COD	9			0.045		0.113		0.127		0.492	0.26
Bal	B	r-BEAM	none	COD	1										
Bal	B	r-BEAM	none	COD	2	0.608									
Bal	B	r-BEAM	none	COD	3	10.002									
Bal	B	r-BEAM	none	COD	4	2.015									
Bal	B	r-BEAM	none	COD	5	0.358									
Bal	B	r-BEAM	none	COD	6	0.108									
Bal	B	r-BEAM	none	COD	7	0.041									
Bal	B	r-BEAM	none	COD	8	0.007									
Bal	B	r-BEAM	none	COD	9										
Bal	B	r-DEM_SEINE	none	COD	1										
Bal	B	r-DEM_SEINE	none	COD	2	4.258		0.014		94.999		9.889		0.001	
Bal	B	r-DEM_SEINE	none	COD	3	3.38		0.177		68.817		56.552		4.431	
Bal	B	r-DEM_SEINE	none	COD	4	0.364		0.096		29.636		20.222		24.796	
Bal	B	r-DEM_SEINE	none	COD	5	0.056		0.008		8.426		4.248		14.834	
Bal	B	r-DEM_SEINE	none	COD	6	0.004		0.004		1.248		0.852		1.918	
Bal	B	r-DEM_SEINE	none	COD	7	0.001		0.002		0.374		0.197		0.291	
Bal	B	r-DEM_SEINE	none	COD	8	0		0.001		0.072		0.049		0.144	
Bal	B	r-DEM_SEINE	none	COD	9			0		0.019		0.016		0.016	
Bal	B	r-GILL	none	COD	1		18.172		639.037	4.713	224.387				0.338	
Bal	B	r-GILL	none	COD	2	573.797	491.796	260.16	636.002	1909.048	210.536	371.175		48.014	0.622	180.001
Bal	B	r-GILL	none	COD	3	5257.035	445.906	3921.093	345.085	2663.936	31.346	1762.94	10.831	472.1	9.423	656.584
Bal	B	r-GILL	none	COD	4	3879.454	21.568	4765.184	29.696	1565.612	3.92	807.544	3.791	813.11	2.014	613.216
Bal	B	r-GILL	none	COD	5	1199.211	0.949	1204.965	1.828	333.208	0.109	303	0.271	296.429	0.721	330.278

Table 4.3.4: continued

Bal	B	r-GILL	none	COD	6	217.046		295.679		50.077		82.224	0.271	53.3		108.642		
Bal	B	r-GILL	none	COD	7	46.894		46.812		14.994		9.685		11.692		22.759		
Bal	B	r-GILL	none	COD	8	4.808		7.429		3.215		2.636		3.451		7.706		
Bal	B	r-GILL	none	COD	9	2.144		0.841		1.36		1.113		0.897		1.303		
Bal	B	r-LONGLINE	none	COD	1		1.834		32.01	1.607	6.097							
Bal	B	r-LONGLINE	none	COD	2	83.49	45.449	116.676	43.635	646.704	85.683	526.358		23.145		80.23		
Bal	B	r-LONGLINE	none	COD	3	1085.584	226.914	1037.697	38.905	1108.985	77.92	2014.193		768.679		331.614		
Bal	B	r-LONGLINE	none	COD	4	880.724	9.505	1385.274	4.319	737.397	9.081	483.418		878.355		309.591		
Bal	B	r-LONGLINE	none	COD	5	303.687	0.112	357.109	0.38	142.054	0.065	181.205		210.115		188.12		
Bal	B	r-LONGLINE	none	COD	6	66.89		101.461	0.088	27.659		35.239		41.449		41.239		
Bal	B	r-LONGLINE	none	COD	7	18.226		19.706	0.088	10.188		7.758		11.246		7.161		
Bal	B	r-LONGLINE	none	COD	8	1.838		3.342		1.945		3.956		2.365		2.666		
Bal	B	r-LONGLINE	none	COD	9	0.355		0.586		0.733		2.008		0.4		1.367		
Bal	B	r-OTTER	BACOMA	COD	1		0.293		192.461		1103.932		91.216		477.656		68.814	
Bal	B	r-OTTER	BACOMA	COD	2	822.641	224.408	1162.922	430.835	3776.11	840.878	3525.149	2549.562	379.282	2230.908	1040.905	773.738	
Bal	B	r-OTTER	BACOMA	COD	3	7192.206	1105.348	6453.698	244.757	2807.276	9.636	10563.21	2942.256	6701.514	1220.666	4274.088	785.056	
Bal	B	r-OTTER	BACOMA	COD	4	2025.12	78.732	5409.329	20.361	940.675	0.08	1510.982	22.197	4846.549	106.642	4532.91	131.006	
Bal	B	r-OTTER	BACOMA	COD	5	364.45	1.059	592.999	0.566	121.99	0.019	573.155		428.293	3.025	2397.834	0.018	
Bal	B	r-OTTER	BACOMA	COD	6	59.004	0.085	107.967	0.077	18.709		98.372		109.705		214.977		
Bal	B	r-OTTER	BACOMA	COD	7	19.544		26.325		4.915		12.799		50.134		12.05		
Bal	B	r-OTTER	BACOMA	COD	8	4.139		9.022		3.063		9.456		9.69		42.361		
Bal	B	r-OTTER	BACOMA	COD	9	4.995		1.348		0.572		2.888		2.276		0.669		
Bal	B	r-OTTER	none	COD	1		225.397		98.59		211.743		56.849		69.994		46.815	
Bal	B	r-OTTER	none	COD	2	1224.637	1024.586	723.915	666.898	1031.544	807.794	1237.473	905.446	77.736	530.1	103.241	655.182	
Bal	B	r-OTTER	none	COD	3	7547.921	1573.728	3629.288	626.956	3553.903	712.121	6020.388	1310.461	1214.993	700.416	1900.999	835.898	
Bal	B	r-OTTER	none	COD	4	2659.86	201.387	2630.218	160.817	4705.392	195.71	2551.337	301.215	3907.33	170.159	3392.112	199.827	
Bal	B	r-OTTER	none	COD	5	652.668	26.26	291.545	31.934	647.329	40.762	790.708	70.02	1848.685	32.751	2597.421	40.848	
Bal	B	r-OTTER	none	COD	6	109.388	3.51	54.832	4.874	135.963	6.115	262.931	9.55	208.813	4.151	1055.089	5.19	
Bal	B	r-OTTER	none	COD	7	31.06	0.364	17.058	0.535	50.309	0.7	28.451	1.38	42.421	0.51	185.403	0.621	
Bal	B	r-OTTER	none	COD	8	4.667		3.685		5.105		8.768		23.565		33.5		
Bal	B	r-OTTER	none	COD	9	1.931		0.656		2.705		3.222		4.156		13.411		
Bal	B	r-PEL_TRAWL	BACOMA	COD	1												1.518	
Bal	B	r-PEL_TRAWL	BACOMA	COD	2											44.344	12.163	
Bal	B	r-PEL_TRAWL	BACOMA	COD	3											154.43	16.798	
Bal	B	r-PEL_TRAWL	BACOMA	COD	4											111.913	3.099	
Bal	B	r-PEL_TRAWL	BACOMA	COD	5											21.694		
Bal	B	r-PEL_TRAWL	BACOMA	COD	6											0.18		
Bal	B	r-PEL_TRAWL	BACOMA	COD	7													
Bal	B	r-PEL_TRAWL	BACOMA	COD	8													
Bal	B	r-PEL_TRAWL	BACOMA	COD	9													
Bal	B	r-PEL_TRAWL	none	COD	1			1.991	2.832	1.989	62.578		0.11		97.148			
Bal	B	r-PEL_TRAWL	none	COD	2	23.396		508.023	69.252	312.604	39.456	191.455	225.427	0.182	529.962	4.787	27.694	
Bal	B	r-PEL_TRAWL	none	COD	3	153.791		1221.071	47.914	486.201		1727.649	702.356	526.551	107.947	56.639	48.764	
Bal	B	r-PEL_TRAWL	none	COD	4	46.25		743.799	6.731	242.681		471.756	6.967	999.267	5.254	75.609	9.166	
Bal	B	r-PEL_TRAWL	none	COD	5	9.038		116.135	0.156	31.699		184.784		216.648	0.149	38.618		
Bal	B	r-PEL_TRAWL	none	COD	6	1.84		16.857	0.01	3.746		22.798		39.506		4.981		
Bal	B	r-PEL_TRAWL	none	COD	7	0.504		8.497		1.255		2.262		13.013		0.316		
Bal	B	r-PEL_TRAWL	none	COD	8	0.051		5.499		0.254		0.601		1.489		0.899		
Bal	B	r-PEL_TRAWL	none	COD	9			0.112		0.061		0.295		0.72		0.015		
Bal	B	r-TRAMMEL	none	COD	1						0							
Bal	B	r-TRAMMEL	none	COD	2	0.41		0.466		0.001	0.001	0.248		0.058		0.569		
Bal	B	r-TRAMMEL	none	COD	3	6.699		4.788		0.011	0	1.775		0.201		8.112		
Bal	B	r-TRAMMEL	none	COD	4	3.296		2.726		0.007	0	0.592		0.031		8.592		
Bal	B	r-TRAMMEL	none	COD	5	0.482		0.184		0.001	0	0.108		0.007		4.577		
Bal	B	r-TRAMMEL	none	COD	6	0.099		0.048		0		0.02		0.001		1.619		
Bal	B	r-TRAMMEL	none	COD	7	0.03		0.02		0		0.003		0		0.35		
Bal	B	r-TRAMMEL	none	COD	8	0		0.005		0		0.001		0		0.051		
Bal	B	r-TRAMMEL	none	COD	9			0.001		0		0		0		0.006		

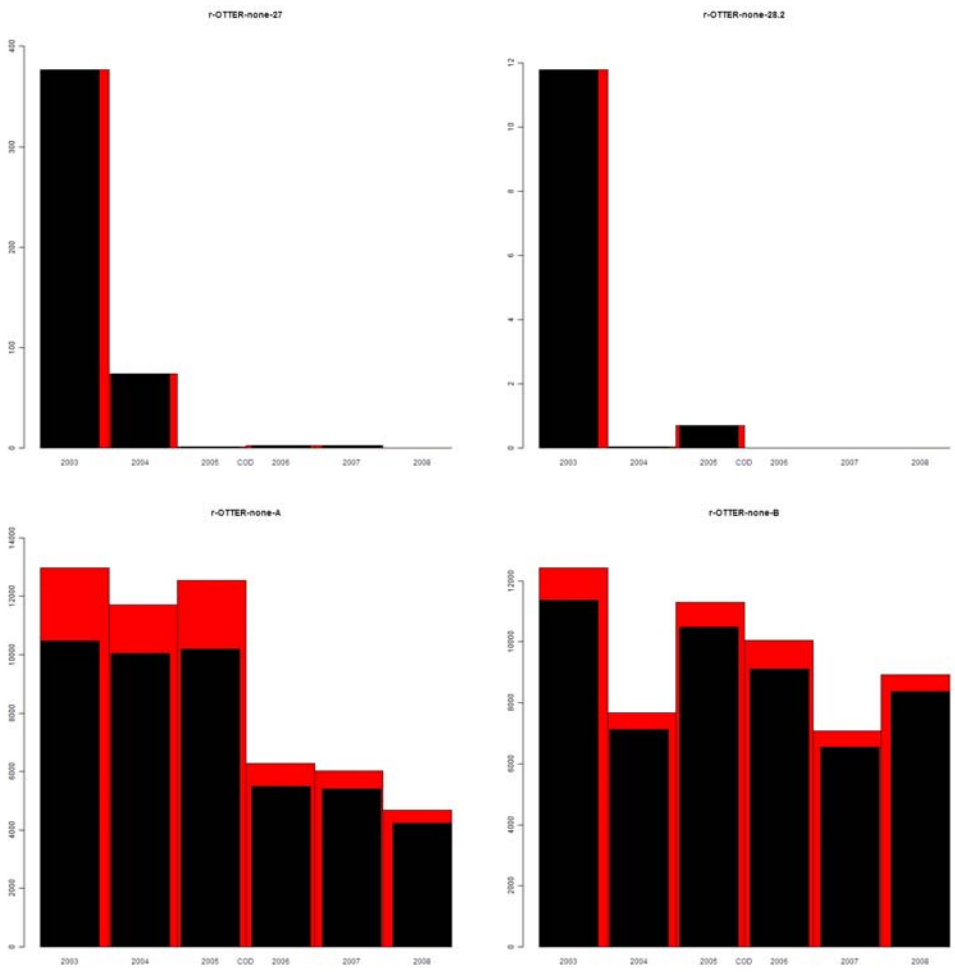

Figure 4.3.1 Catch and landings in tonnes of Baltic cod by sub-area and gear category 2003-2008. Black bars show landings, red bars catches (landings + discards). An "r" in front of the gear type indicates regulated gears in accordance with R(EC) 1098/2007 (see section 3.6). Gear types without an "r" are non-regulated gears.

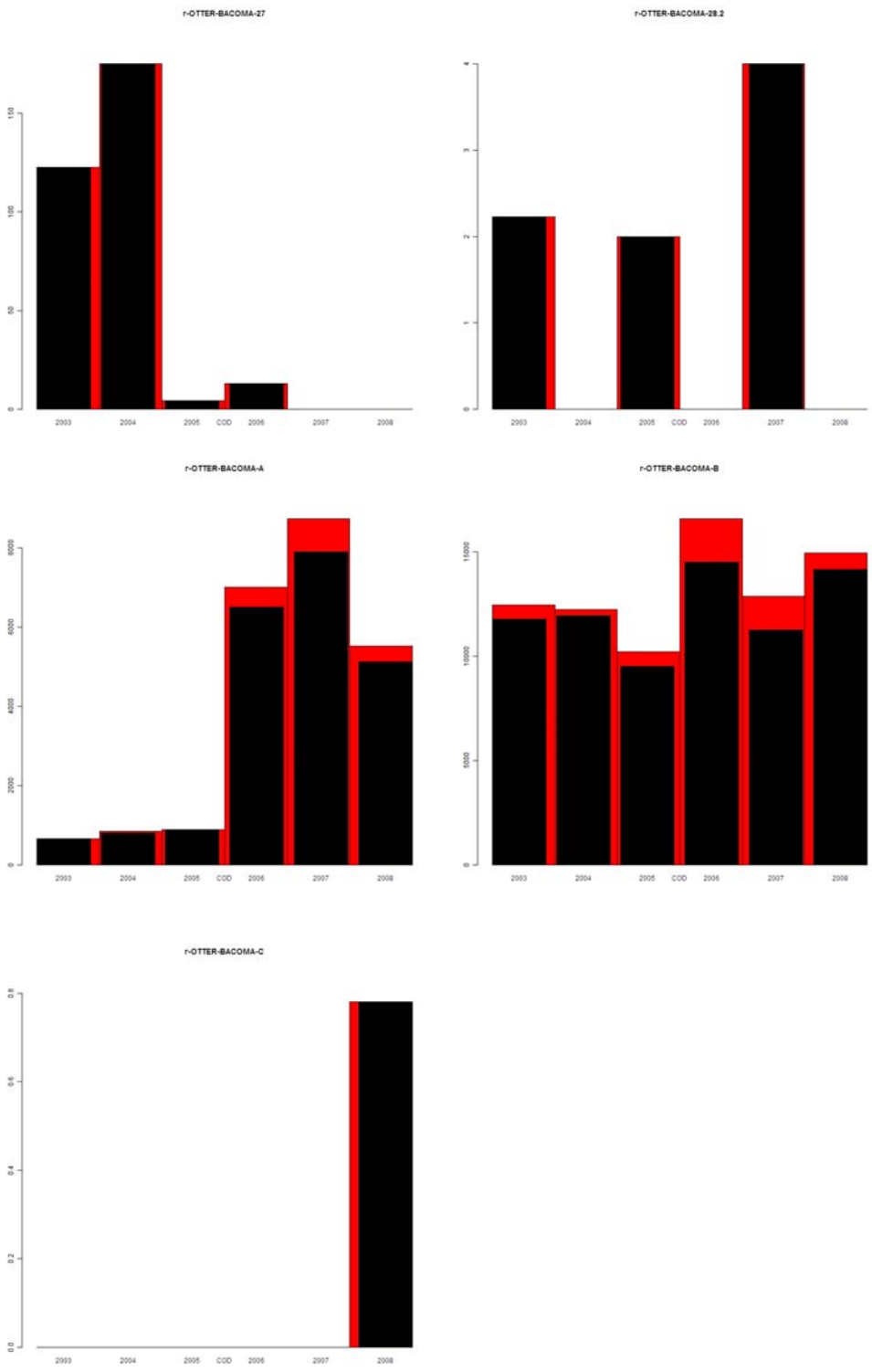

Figure 4.3.1 continued

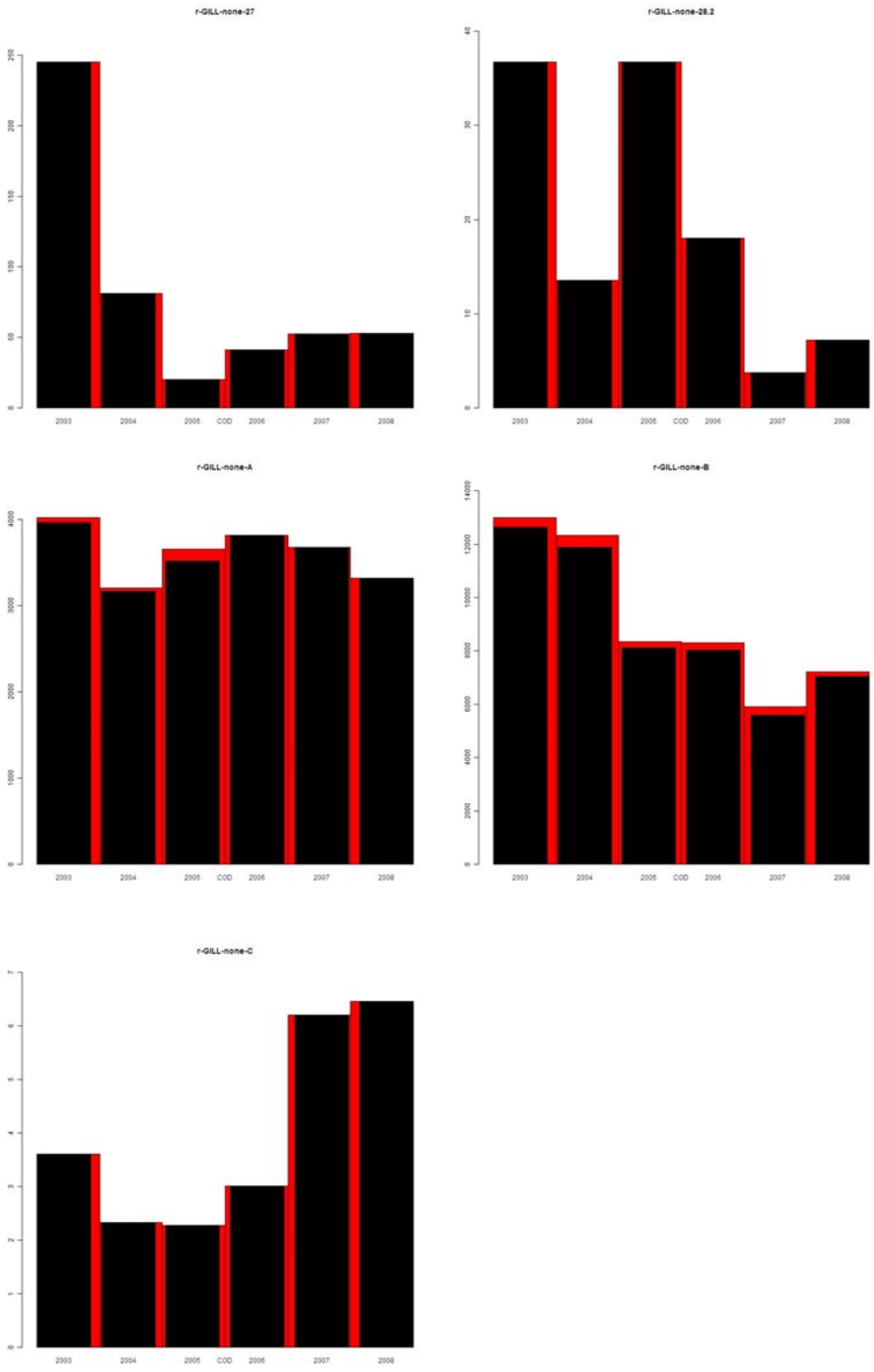

Figure 4.3.1 continued

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

4.4.1. General considerations regarding CPUE and LPUE estimates

STECF-SGMOS notes that CPUE and LPUE series are often interpreted and used as stock abundance indicator. However, STECF-SGMOS 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 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 given units of g/(kW*days) in the following sections by management area.

4.4.2. Trends in CPUE and LPUE for Baltic cod by gear categories in accordance with R(EC) 2187/2005 and sub-area

Since it was explicitly asked to analyse CPUE and LPUE time series of Baltic cod for gear categories which are in accordance with R(EC) 2187/2005 only, another classification of gear categories was used in this section compared to the rest of the report. According to R(EC) 2187/2005 it is only permissible to fish cod with trawls, Danish seines or similar gears with mesh size >=105mm equipped with special condition BACOMA or T90. It is also permissible to fish with gill nets, entangling nets and trammel nets with mesh sizes >= 110mm to <156mm and >=156mm. Since it was not possible to distinguish between BACOMA and non-BACOMA trawls, Danish seines or similar gears for several member states based on logbook data, non-BACOMA trawls, Danish seines and similar gears were taken into account in the calculations.

The following tables Table 4.4.2.1 and 4.4.2.2 provide detail. The CPUE figures in the table should only be considered indicative since estimated discard ratios are often based on poor data.

A general trend over the years was not obvious, although CPUEs and LPUEs showed a high inter-annual variability. CPUEs and LPUEs were in general higher for otter trawls, demersal seines and pelagic trawls compared to gill nets. CPUEs for cod were highest in sub-area B, followed by sub-area A.

Table 4.4.2.1 Baltic : Cod CPUE (g/KW*days) by derogation and year, 2003-2008 for sub-area A; B, C ,27; 28.2.

ANNEX	SPECIES	REG AREA	REG GEAR	MESH SIZE	SPECON	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008
Bal	COD	A	Otter, Dem. seine etc..	>=105	Bacoma	3743	4432	3559	3785	4640	3756
Bal	COD	A	Otter, Dem. seine etc..	>=105	none	2677	2682	2977	3440	3680	3258
Bal	COD	A	Gill nets etc...	>=110 - <157	none	1434	1205	1081	1320	1476	1475
Bal	COD	A	Gill nets etc...	>=157	none	1136	624	449	919	937	1126
Bal	COD	A	Gill nets etc...	>=220	none	33	51	216	121	139	347
Bal	COD	A	TRAMMEL	>=110 - <157	none	596	591	642	736	764	835
Bal	COD	A	TRAMMEL	>=157	none	3836	3014	2690	4055	3644	2240
Bal	COD	A	LONGLINE		none	1616	1935	2332	1493	3339	1671
Bal	COD	A	none	none	none	166	114	222	298	194	236
Bal	COD	B	Otter, Dem. seine etc..	>=105	Bacoma	12351	8125	5882	7393	8600	7536
Bal	COD	B	Otter, Dem. seine etc..	>=105	none	3776	4662	5533	6439	9987	12204
Bal	COD	B	Gill nets etc...	>=110 - <157	none	2245	1999	1535	2324	1894	1933
Bal	COD	B	Gill nets etc...	>=157	none	162	37	19	6	110	398
Bal	COD	B	Gill nets etc...	>=220	none	65	55	28	0	0	44
Bal	COD	B	TRAMMEL	>=110 - <157	none		0	0	0	0	268
Bal	COD	B	TRAMMEL	>=157	none	54455	14768				18010
Bal	COD	B	LONGLINE		none	5972	8010	7209	8538	8483	6982
Bal	COD	B	none	none	none	130	146	154	898	1304	2442
Bal	COD	27	Otter, Dem. seine etc..	>=105	Bacoma	2649	4880	3236	3231		0
Bal	COD	27	Otter, Dem. seine etc..	>=105	none	2111	691	9	33	19	
Bal	COD	27	Gill nets etc...	>=110 - <157	none	1539	951	355	607	587	566
Bal	COD	27	Gill nets etc...	>=220	none	0	0	0	0	0	0
Bal	COD	27	Trammel	110-156	none		0				
Bal	COD	27	LONGLINE		none	0	3071	385	0	0	7389
Bal	COD	27	none	none	none					17	
Bal	COD	28.2	Otter, Dem. seine etc..	>=105	Bacoma	417		2389		4779	
Bal	COD	28.2	Otter, Dem. seine etc..	>=105	none	1735	0	75			
Bal	COD	28.2	Gill nets etc...	>=110 - <157	none	1028	911	1290	906	157	201
Bal	COD	28.2	Gill nets etc...	>=220	none	0	0	55	0	0	85
Bal	COD	28.2	TRAMMEL	>=110 - <157	none			0	0	0	277
Bal	COD	28.2	LONGLINE		none		0	255	0		
Bal	COD	28.2	none		none			27	0	7	
Bal	COD	C	Otter, Dem. seine etc..	>=105	Bacoma						463
Bal	COD	C	Gill nets etc...	>=110 - <157	none	19	13	154	307	377	234
Bal	COD	C	longline		none						0
Bal	COD	C	none	none	none			0	60		

Table 4.4.2.2 Baltic: Cod LPUE (g/KW*days) by derogation and year, 2003-2008 for Area A; B, C ,27; 28.2; C

ANNEX	SPECIES	REG AREA	REG GEAR	MESH SIZE	SPECON	LPUE 2003	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008
Bal	COD	A	Otter, Dem. seine etc..	>=105	Bacoma	3743	4182	3548	3515	4204	3483
Bal	COD	A	Otter, Dem. seine etc..	>=105	none	2193	2310	2439	3036	3294	2957
Bal	COD	A	Gill nets etc...	>=110 - <157	none	1412	1189	1042	1320	1476	1475
Bal	COD	A	Gill nets etc...	>=157	none	1136	624	449	919	937	1126
Bal	COD	A	Gill nets etc...	>=220	none	33	51	216	121	139	347
Bal	COD	A	TRAMMEL	>=110 - <157	none	591	585	625	736	764	835
Bal	COD	A	TRAMMEL	>=157	none	3836	3014	2690	4055	3644	2240
Bal	COD	A	LONGLINE		none	1602	1866	2225	1493	3339	1671
Bal	COD	A	none	none	none	166	113	222	298	194	236
Bal	COD	B	Otter, Dem. seine etc..	>=105	Bacoma	11681	7927	5489	6526	7701	7135
Bal	COD	B	Otter, Dem. seine etc..	>=105	none	3450	4384	5151	5775	9093	11429
Bal	COD	B	Gill nets etc...	>=110 - <157	none	2198	1970	1511	2242	1846	1912
Bal	COD	B	Gill nets etc...	>=157	none	162	37	19	6	110	398
Bal	COD	B	Gill nets etc...	>=220	none	65	55	28	0	0	44
Bal	COD	B	TRAMMEL	>=110 - <157	none		0	0	0	0	268
Bal	COD	B	TRAMMEL	>=157	none	54455	14768				18010
Bal	COD	B	LONGLINE		none	5744	7919	7037	8538	8483	6416
Bal	COD	B	none	none	none	130	146	154	898	1304	2442
Bal	COD	27	Otter, Dem. seine etc..	>=105	Bacoma	2649	4880	3236	3231		0
Bal	COD	27	Otter, Dem. seine etc..	>=105	none	2111	691	9	33	19	
Bal	COD	27	Gill nets etc...	>=110 - <157	none	1539	951	355	607	587	566
Bal	COD	27	Gill nets etc...	>=220	none	0	0	0	0	0	0
Bal	COD	27	Trammel	110-156	none		0				
Bal	COD	27	LONGLINE		none	0	3071	385	0	0	7389
Bal	COD	27	none	none	none					17	
Bal	COD	28.2	Otter, Dem. seine etc..	>=105	Bacoma	417		2389		4779	
Bal	COD	28.2	Otter, Dem. seine etc..	>=105	none	1735	0	75			
Bal	COD	28.2	Gill nets etc...	>=110 - <157	none	1028	911	1290	906	157	201
Bal	COD	28.2	Gill nets etc...	>=220	none	0	0	55	0	0	85
Bal	COD	28.2	TRAMMEL	>=110 - <157	none			0	0	0	277
Bal	COD	28.2	LONGLINE		none		0	255	0		
Bal	COD	28.2	none		none			27	0	7	
Bal	COD	C	Otter, Dem. seine etc..	>=105	Bacoma						463
Bal	COD	C	Gill nets etc...	>=110 - <157	none	19	13	154	307	377	234
Bal	COD	C	longline		none						0
Bal	COD	C	none	none	none			0	60		

4.5. 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 4.5.1 and 4.5.2.

There are large regional differences in the dominating gear that are responsible for the cod catches. In 2008 the otter trawl fishery was dominant in Area A and B with gillnet fishery as the second most important cod catching gear. In area C, 27 and 28.2, gillnets were the major gears although the total amount of cod catches was low compared to area 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, 27 and 28.2 larger shifts occurred. Note that the ranking was made based on data for 2008 only. Gears not listed only had marginal catches of cod in 2008. According to available data, cod catches from unregulated gear types do not play a significant role.

Table 4.5.1 Ranked gear categories according to the proportional catches of cod 2003-2008

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel
Bal	A	COD	r-OTTER	0.68	0.7	0.69	0.67	0.7	0.66
Bal	A	COD	r-GILL	0.2	0.18	0.19	0.19	0.18	0.21
Bal	A	COD	r-DEM_SEINE	0.06	0.07	0.04	0.07	0.06	0.08
Bal	A	COD	r-TRAMMEL	0.01	0.01	0.02	0.02	0.02	0.02

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel
Bal	B	COD	r-OTTER	0.59	0.49	0.61	0.6	0.58	0.69
Bal	B	COD	r-GILL	0.31	0.3	0.24	0.19	0.17	0.21
Bal	B	COD	r-LONGLINE	0.07	0.08	0.08	0.08	0.06	0.05
Bal	B	COD	r-PEL_TRAWL	0.01	0.11	0.05	0.11	0.15	0.02

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel
Bal	C	COD	r-GILL	1	1	0.5	0.43	1	0.75
Bal	C	COD	GILL			0.5	0		0.12
Bal	C	COD	r-OTTER						0.12

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel
Bal	27	COD	r-GILL	0.32	0.24	0.67	0.71	0.95	0.95
Bal	27	COD	r-LONGLINE	0	0.02	0.03	0	0	0.05

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel
Bal	28.2	COD	r-GILL	0.73	0.74	0.8	0.78	0.36	0.88
Bal	28.2	COD	r-TRAMMEL			0	0	0	0.12

Table 4.5.2 Ranked gear Categories according to the proportional landings of cod 2003-2008

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel
Bal	A	COD	r-OTTER	0.65	0.68	0.65	0.65	0.68	0.64
Bal	A	COD	r-GILL	0.23	0.2	0.21	0.21	0.19	0.23
Bal	A	COD	r-DEM_SEINE	0.07	0.07	0.05	0.07	0.06	0.08
Bal	A	COD	r-TRAMMEL	0.02	0.02	0.02	0.02	0.02	0.02

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel
Bal	B	COD	r-OTTER	0.58	0.48	0.6	0.58	0.57	0.68
Bal	B	COD	r-GILL	0.32	0.3	0.24	0.2	0.18	0.21
Bal	B	COD	r-LONGLINE	0.07	0.09	0.08	0.09	0.06	0.05
Bal	B	COD	PEL_TRAWL	0	0.01	0.01	0.01	0.03	0.03

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel
Bal	C	COD	r-GILL	1	1	0.5	0.43	1	0.75
Bal	C	COD	GILL			0.5	0		0.12
Bal	C	COD	r-OTTER						0.12

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel
Bal	27	COD	r-GILL	0.32	0.24	0.67	0.71	0.95	0.95
Bal	27	COD	r-LONGLINE	0	0.02	0.03	0	0	0.05

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel
Bal	28.2	COD	r-GILL	0.73	0.74	0.8	0.78	0.36	0.88
Bal	28.2	COD	r-TRAMMEL			0	0	0	0.12

4.6. Information on landings from vessels under 10m

The vessels under 10m are responsible for around 13 % of the total cod landings in subdivisions 22-24 during 2008. Only 4 % of the total amount of cod landed in subdivisions 25-28 stem from vessels under 10m. These figures are underestimates of the amount since only Sweden, Denmark and Germany have delivered data for vessels under 10m.

Table 4.6.1 Landings of cod by vessels under 10m for 2003-2008.

(Only data from Germany, Denmark and Sweden)

SGDFF_AREA	GEAR	2002	2003	2004	2005	2006	2007	2008
22-24	DEM_SEINE				0	1	1	
	GILL		1914	1454	2976	2580	2544	2108
	LONGLINE		22	17	197	210	187	34
	none		2	2	53	8	17	9
	OTTER		42	19	52	132	86	37
	PEL_TRAWL				1	0	0	0
	POTS		10	12	294	94	200	69
	TRAMMEL		13	18	181	170	166	184
25-28	GILL		1043	909	1475	1239	1266	1282
	LONGLINE		318	421	888	590	430	461
	none		1	0	0	12	4	6
	OTTER		37		2	4	3	1
	POTS		23	13	12	13	12	14
	TRAMMEL		2	3	4	3	38	6
27	GILL		186	95	31	36	47	30
	LONGLINE		2	3	1			
	none					2		
	OTTER						0	
	POTS		0	0	0	1	1	1
	TRAMMEL		0		0	0		0
28.2	GILL		5	10	23	8	6	3
	LONGLINE			0				
	TRAMMEL					0	0	0
29-32	GILL		6	6	2	3	2	4
	OTTER			0				
	POTS		9					
Totalt			2198	1980	4884	3805	3767	3310

4.7. Spatial distribution patterns of effective effort

There was no data reported on the spatial distribution of effort from Sweden, Poland and Lithuania and only a limited amount of data reported from Estonia and Finland. Hence the confidence in these results is low. Only figures for the dominant gear groups in terms of the amount of landed cod (r-Otter and r-Gill) are presented below. A full set of figures, however, will be made available on the web.

STECF-SGMOS notes again that at the present time the minimum geographic resolution in the available logbook information on landings and effective effort is the ICES rectangle. The effective effort values of certain nations were given in days fished which were then converted to trawled hours by applying a factor of 24. STECF-SGMOS notes that only major changes in the geographical distribution patterns should be given attention given the imprecision of the created data set

According to available data, the spatial distribution of deployed effort showed a westward shift over the years. Especially in sub-area C there was almost no effort by the main gears catching cod after 2003. The highest effective fishing effort was observed in sub-area A, followed by sub-area B.

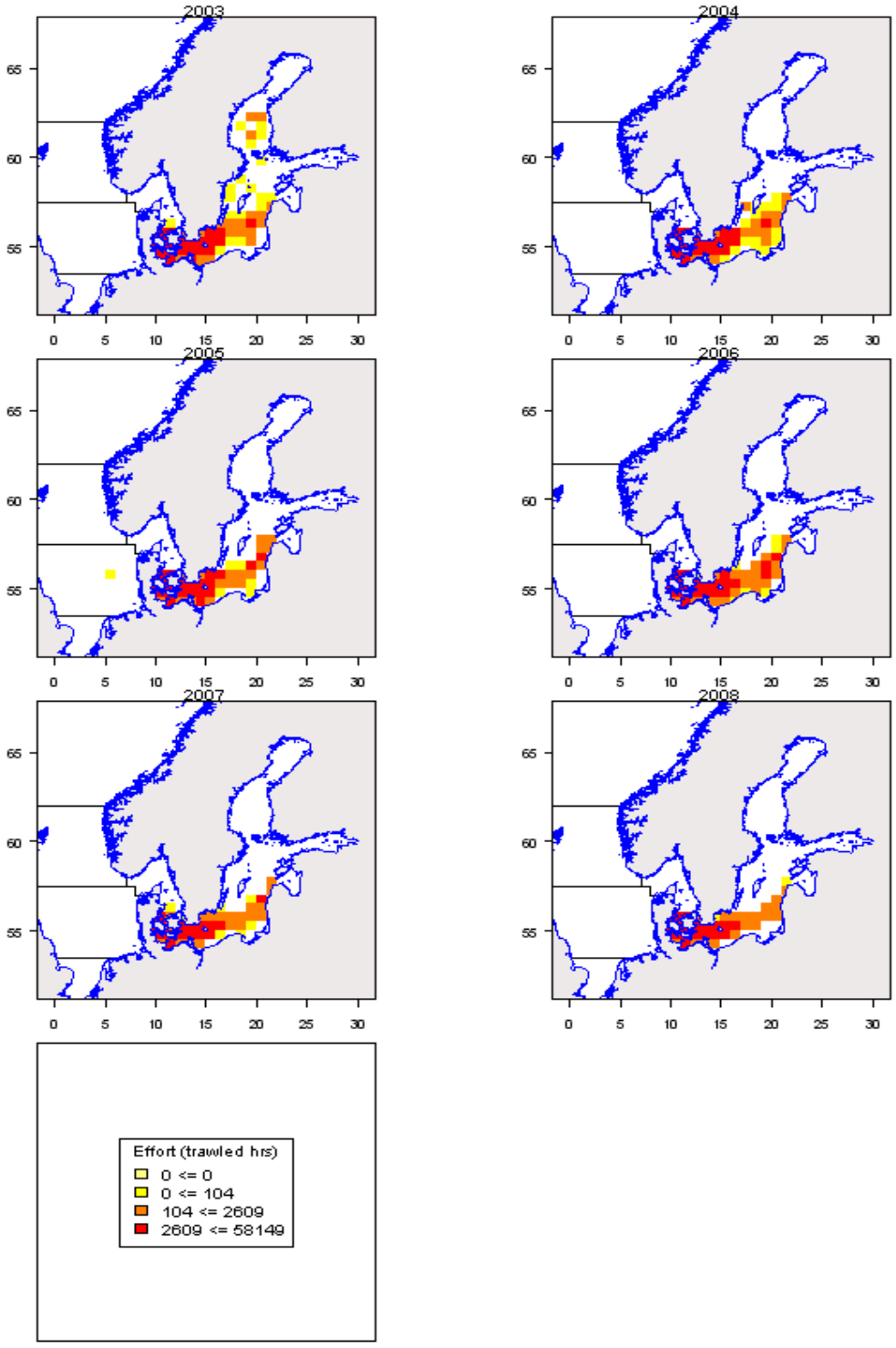

Figure. 4.7.1 Spatial distribution of effective effort (trawled hours) r-OTTER 2003-2008. There was no data reported on the spatial distribution of effort from Sweden, Poland and Lithuania and only a limited amount of data reported from Estonia and Finland.

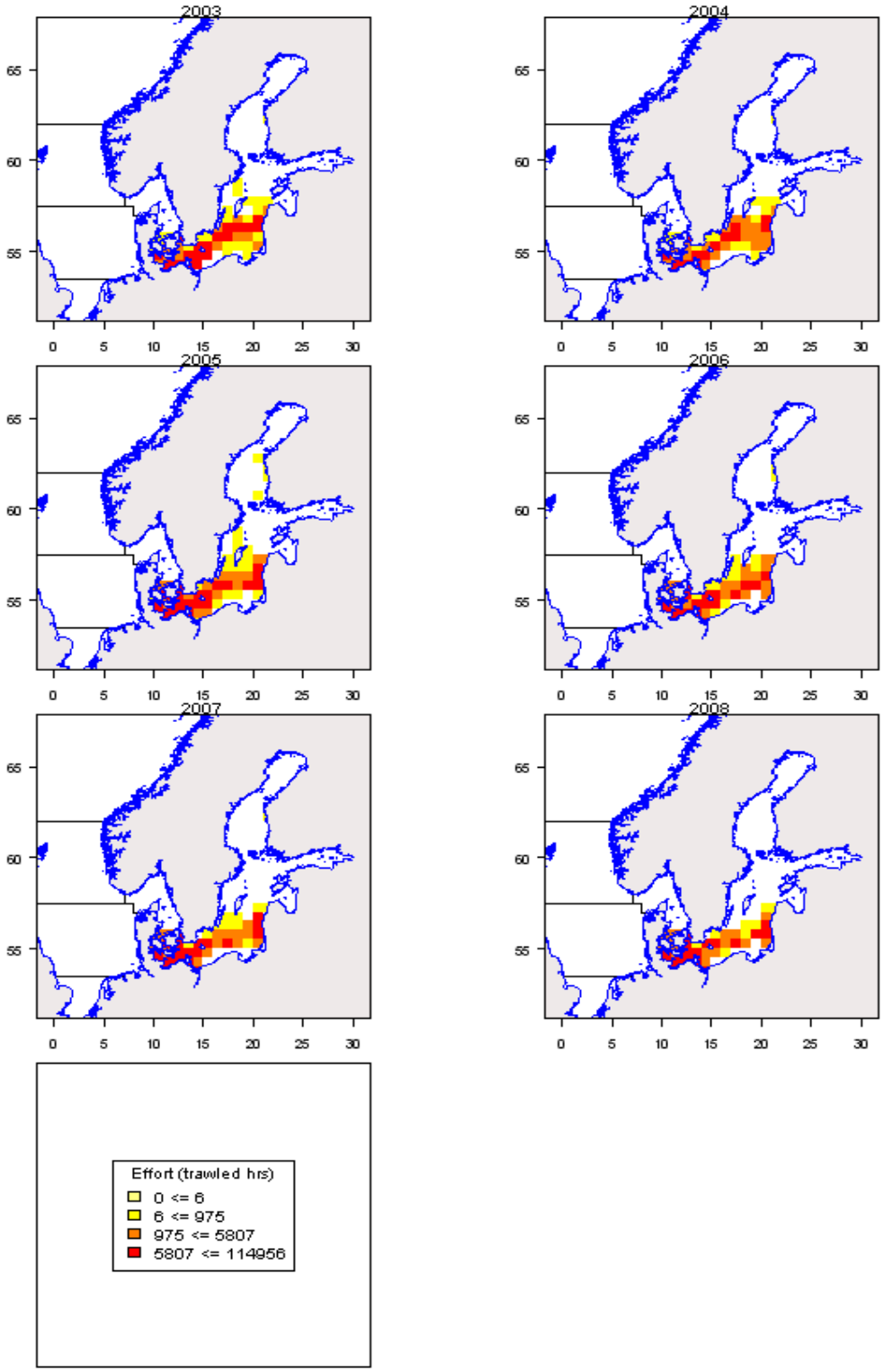

Figure. 4.7.2 Spatial distribution of effective effort (fishing hours) r-Gill 2003-2008. There was no data reported on the spatial distribution of effort from Sweden, Poland and Lithuania and only a limited amount of data reported from Estonia and Finland.

5. ANNEX 1: DATA CALLS FROM 16 AND 19 MARCH 2009.

EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR MARITIME AFFAIRS AND FISHERIES

POLICY DEVELOPMENT AND CO-ORDINATION
COMMON FISHERIES POLICY AND AQUACULTURE

MARE / C2
N° D/2783
DATE 16.03.09
ATTRIBUTION
COPIE FCC, 4P, 3L, 3PP
INFO CIRC 2

Brussels, 16.03.2009 D 02783
D(2009)

FAX

To:	Permanent Representations of all Member States to EU	**Telephone:**	
		Fax:	
From:	Ernesto PENAS LADO	**Telephone:**	(32-2) 296 37 44
		Fax:	(32-2) 299 48 02
Number of pages:	3+16		

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 that been implemented for the last four years, the Commission will consult the STECF / SG-MOS working group during its next meetings (04.05-08.05.2009 and 25.05-29.05.2009), 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],
- ✓ and the multi-annual plan of Western Channel sole stock [R(EC) No 509/2007].

In addition to such plans, the Commission will also request STECF to take into account the fishing effort management schemes adopted in application of

- ✓ the multi-annual plan for the cod stocks in the Baltic Sea [R(EC) No 198/2007].

Similarly to last year, the Commission will consult the SG-MOS working group on an analysis of fisheries located in the Celtic Sea which would be affected by a possible extend of the scope of the long term plan to the fishing area where this Celtic Sea cod stock is distributed.

Commission européenne, B-1049 Bruxelles / Europese Commissie, B-1049 Brussel - Belgium. Telephone: (32-2) 299 11 11.

In addition, within the current year the Commission will have to evaluate fishing effort regimes related both to:

- ✓ 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 Commission will also entrust the SG-MOS working group with the evaluation of such fishing effort regimes. A specific meeting is already foreseen from 04.05 to 08.05.2009 to carry out such an evaluation.

These reviews and analysis will be based on data as collected according to R(EC) No 1639/2001 and to the R(EC) No 199/2008 establishing a Community framework for the collection and management of the data needed to conduct the common fisheries policy as well as other scientific information collected at national level which would allow Member States to fulfil obligations laid down in article 10 to the Treaty establishing the European Community. 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 2000-2008 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 2003-2008 time period.

To enable the STECF/SG-MOS Working Group 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 17 April 2009, data to the Commission and to the scientists who would attend the meeting.

These data should characterise landings and discards structured by age for the period 2003-2007 and effort for the period 200-2007. The format, which has been discussed wit the STECF secretariat, is described in the annex joined to this facsimile.

Such completed data sets should be sent to the Commission and addressed to Hans Joachim Raetz and to Patrick Daniel with the reference "SG-MOS 09-03/04 Fishing Effort" followed by the name of the Member State, through the following functional e-mail boxes:

MARE-A2@ec.europa.eu

Stecf-secretariat@jrc.it

And put at disposition of the STECF/SG-MOS Working Group by the intermediary of scientists who will form part of it.

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 ages 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.

Ernesto PENAS LADO

Annex I.

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. All fishing effort management schemes – Mandatory Catch data for 2003-2008 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. GEAR (gear should be given according to the code list provided in Appendix 2, which follows the EU data regulation 1639/2001)
6. MESH_SIZE_RANGE (the mesh size range should be given according to the code list provided in Appendix 3, which largely follows the Council regulation 850/98)
7. 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)
8. AREA (the ICES division or sub-area should be given according to the code list provided in Appendix 4
9. SPECON to be specified in accordance with Appendix 5, text string of maximum 10 characters
10. SPECIES (the species should be given according to the code list provided in Appendix 6, which follows the Council Regulation EC 2287/2003)
11. LANDINGS (estimated landings in tonnes should be given; if age based information is present, this quantity should correspond to the sum of products)
12. DISCARDS (estimated discards in tonnes should be given; if age based information is present, this quantity should correspond to the sum of products)
13. 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)
14. 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)
15. 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)
16. 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)
17. 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)
18. 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)
19. 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)
20. 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)

21. 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)
22. 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")
23. 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")
24. Age 0 (years)=0
25. Age 0 No. Landed (thousands)
26. Age 0 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
27. Age 0 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
28. Age 0 No. Discard (thousands)
29. Age 0 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
30. Age 0 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
31. Age 1 (years)=1
32. Age 1 No. Landed (thousands)
33. Age 1 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
34. Age 1 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
35. Age 1 No. Discard (thousands)
36. Age 1 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
37. Age 1 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
38. Age 2 (years)=2
39. Age 2 No. Landed (thousands)
40. Age 2 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
41. Age 2 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
42. Age 2 No. Discard (thousands)
43. Age 2 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
44. Age 2 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
45. Age 3 (years)=3
46. Age 3 No. Landed (thousands)
47. Age 3 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
48. Age 3 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
49. Age 3 No. Discard (thousands)
50. Age 3 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
51. Age 3 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
52. Age 4 (years)=4
53. Age 4 No. Landed (thousands)
54. Age 4 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
55. Age 4 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
56. Age 4 No. Discard (thousands)
57. Age 4 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
58. Age 4 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
59. Age 5 (years)=5
60. Age 5 No. Landed (thousands)
61. Age 5 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
62. Age 5 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
63. Age 5 No. Discard (thousands)
64. Age 5 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
65. Age 5 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
66. Age 6 (years)=6
67. Age 6 No. Landed (thousands)
68. Age 6 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
69. Age 6 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
70. Age 6 No. Discard (thousands)
71. Age 6 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
72. Age 6 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
73. Age 7 (years)=7
74. Age 7 No. Landed (thousands)
75. Age 7 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)

76. Age 7 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
77. Age 7 No. Discard (thousands)
78. Age 7 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
79. Age 7 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
80. Age 8 (years)=8
81. Age 8 No. Landed (thousands)
82. Age 8 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
83. Age 8 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
84. Age 8 No. Discard (thousands)
85. Age 8 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
86. Age 8 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
87. Age 9 (years)=9
88. Age 9 No. Landed (thousands)
89. Age 9 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
90. Age 9 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
91. Age 9 No. Discard (thousands)
92. Age 9 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
93. Age 9 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
94. Age 10 (years)=10
95. Age 10 No. Landed (thousands)
96. Age 10 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
97. Age 10 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
98. Age 10 No. Discard (thousands)
99. Age 10 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
100. Age 10 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
101. Age 11 (years)=11
102. Age 11 No. Landed (thousands)
103. Age 11 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
104. Age 11 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
105. Age 11 No. Discard (thousands)
106. Age 11 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
107. Age 11 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
108. Age 12 (years)=12
109. Age 12 No. Landed (thousands)
110. Age 12 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
111. Age 12 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
112. Age 12 No. Discard (thousands)
113. Age 12 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
114. Age 12 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
115. Age 13 (years)=13
116. Age 13 No. Landed (thousands)
117. Age 13 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
118. Age 13 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
119. Age 13 No. Discard (thousands)
120. Age 13 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
121. Age 13 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
122. Age 14 (years)=14
123. Age 14 No. Landed (thousands)
124. Age 14 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
125. Age 14 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
126. Age 14 No. Discard (thousands)
127. Age 14 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
128. Age 14 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
129. Age 15 (years)=15
130. Age 15 No. Landed (thousands)
131. Age 15 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)
132. Age 15 MEAN Length Landed (cm, precision in mm=1 digits after the comma)
133. Age 15 No. Discard (thousands)
134. Age 15 MEAN Weight Discard (kg, precision in gram=3 digits after the comma)
135. Age 15 MEAN Length Discard (cm, precision in mm=1 digits after the comma)
136. Age 16 (years)=16
137. Age 16 No. Landed (thousands)
138. Age 16 MEAN Weight Landed (kg, precision in gram=3 digits after the comma)

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

B. All fishing effort management schemes – Mandatory effort data for 2000-2008, 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_CATEGORY (L < 10 m Loa ; 10 m Loa ≤ L < 15 m Loa ; 15 m Loa ≤ L)
6. GEAR (this identifies gear, and should be given according to the code list provided in Appendix 2, 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 3, 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 4)
10. SPECON to be specified in accordance with Appendix 5, text string of maximum 10 characters
11. 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)
12. EFFECTIVE_EFFORT (optionally, gear specific effort can be given in other units, to be specified in the next field, than the nominal effort; if effective effort is not available "-1" should be given)
13. EFFORT_UNIT (this field should state the unit of effort used for the optional effective effort in the field above; this is free text with a maximum of 40 characters without space; if no effective effort is given, "-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 (simple integer value of vessels, if the number is not available, "-1" should be given.

C. Fishing effort management schemes linked to Annex IIA, B and IIC, to Western waters and to deep sea regulations – Specific effort data by rectangle for 2003-2008 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_CATEGORY (L < 10 m Loa ; 10 m Loa ≤ L < 15 m Loa ; 15 m Loa ≤ L)
6. GEAR (this identifies gear, and should be given according to the code list provided in Appendix 2, 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 3, 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 4). (For the Western Waters Regulation; please consider ICES and CECAF areas: V, VI, VII, VIII, IX and X and CECAF divisions 34.1.1, 34.1.2 and 34.2.0. For the Deep sea regulation, please consider ICES I-XIV and CECAF 34.1.1, 34.1.2, 34.1.3 and 34.2. For the Annex IIA, IIB and IIC, please consider only ICES Divisions 2-10)
10. SPECON to be specified in accordance with Appendix 5, text string of maximum 10 characters
11. RECTANGLE (text, 4 letters like 44F6)
12. EFFECTIVE_EFFORT (hours fished, simple long numerical integer)

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
Norway	NOR
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
Other countries	OTH

Appendix 2

Gear coding

TYPES OF FISHING TECHNIQUES			Gear code
Mobile gears	Beam trawls		BEAM
	Bottom trawls & demersal seines	Bottom otter trawls, Multi-rig otter trawls or Bottom pair trawls	OTTER
		Fly shooting seines, Anchored seines or Pair seines	DEM_SEINE
	Pelagic trawls & pelagic Seines	Midwater otter trawls or Midwater pair trawls	PEL_TRAWL
		Purse seines, Fly shooting seines or Anchored seines	PEL_SEINE
	Dredges		DREDGE
Passive gears	Drifting longlines or Set longlines		LONGLINE
	Driftnets or Set gillnets (*except Trammel Nets*)		GILL
	Trammel Nets		TRAMMEL
	Pots & traps		POTS

Appendix 3

Mesh size coding

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
	>=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 4

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

Baltic Sea

22-24

25-28[3]

27

28.2

29-32

North Sea, Skagerrak, Kattegat and Eastern Channel

2 EU

3an

3as

4

7d

Northern Shelf

1 COAST[4]

1 RFMO[5]

2 COAST

2 RFMO

5a

5b EU[6]

5b COAST

5b RFMO

6a

6b EU

6b RFMO

7a[7]

12 RFMO

---

[3] Areas 27 and 28.2 included.

[4] COAST will refer to waters under jurisdiction of a non-EU coastal state.

[5] RFMO will refer to waters where fisheries are managed through RFMOs.

[6] 5b EU will have to be considered as covering the following ICES statistical rectangles: 49D6, 49D7, 49D8, 49D9, 49E0, 49E1, 49E2, 49E3, 49E4, 50E5.

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

14a

14b COAST

14b RFMO

Southern Shelf

BSA[8]

7b[9]

7c EU

7c RFMO

7e

7f

7g[10]

7h[11]

28E2

7j EU[12]

7j RFMO

7k EU

7k RFMO

8a

8b

8c

8d EU

8d RFMO

8e EU

8e RFMO

9a

9b EU

9b RFMO

10 EU

---

[8] BSA (Biological Sensitive Area) will have to be considered as covering the following ICES statistical rectangles: 35D8, 35D9, 35E0, 34D8, 34D9, 34E0, 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, 27D9, 27E0, 27E1, 27D2, 26D9, 26E0, 26E1, 26E2

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

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

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

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

10 RFMO

CECAF

34.1.1 EU

34.1.1 COAST

34.1.2 EU

34.1.2 COAST

34.1.2 RFMO

34.1.3 COAST

34.1.3 RFMO

34.2.0 EU

34.2.0 COAST

34.2.0 RFMO

Appendix 5

Coding of special conditions for the derogations listed in Council Regulation 40/2008, Annexes IIA, IIB and IIC

Annex IIA:

IIA83a

IIA83b

IIA83c

IIA83d

IIA83e

IIA83f

IIA83g

IIA83h

IIA83i

IIA83j

IIA83k

IIA83l

IIA83hj

Annex IIB:

IIB72ab

Annex IIC:

No special conditions

BALTIC Technical Conditions

Bacoma

T90

15

Appendix 6

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	CMIO	*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 albacares*
122. Yellowtail flounder	YEL	*Limanda ferruginea*

EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR MARITIME AFFAIRS AND FISHERIES

POLICY-DEVELOPMENT AND CO-ORDINATION
COMMON FISHERIES POLICY AND AQUACULTURE

MARE / C2	
N°	D/2975
DATE	19.03.09
ATTRIBUTION	JL, [illegible]
COPIE	KP, JPP
INFO	CIRC

Brussels, 19.03.2009 D 02975
D(2009)

FAX

To:	Permanent Representations of all Member States to EU	**Telephone:**	
		Fax:	
From:	Ernesto PENAS LADO	**Telephone:**	(32-2) 296 37 44
		Fax:	(32-2) 299 48 02
Number of pages:	2		

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 last Monday 16.03.2009, with the reference D(2009)02783, the DG Mare sent to all Member States permanent representations a call for data to be taken into account by the STECF during its next working group meetings on fishing effort management schemes.

Unfortunately, a mistake has slipped into the submitted version regarding time series to be build for catches data and fishing effort data.

Nevertheless, according to the document attached to this call (Annexe 1 and its appendices), periods of time to be taken into account should be the following

- 2003-2008 for landings and discards described in part A of the Annex 1
- 2000-2008 for fishing effort described in part B of the Annex 1 (except for data aggregated by ICES statistical rectangles - part C of the Annex 1 specifies the 2003-2008 time period)

And the wrong sentence included in the submitted version should have been written as below:

> **These data should characterise landings and discards structured by age for the period 2003-2008 and effort for the period 2000-2008. The format, which has been discussed wit the STECF secretariat, is described in the annex joined to this facsimile.**

In addition, the note 8 of Appendix 4, which specifies ICES statistical rectangles covering the Biological Sensitive Area, also so called "Irish Box" in the context of the Western Waters regime, contains some mistakes as well and should be designed as below :

> [8] 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.

I furthermore take advantage of this corrigendum to inform you that, according to the format designed in Annex 1 of the data call, the code "DEEP" could be used to fill the field "FISHERY" when fishing effort data and/or catch data would have to be related to deep-sea fisheries regulated through R(EC) No 2347/2002).

I thank you for your vigilance which helped correct these instructions and I hope it will answer your questions and clarify the situation.

Ernesto PENAS LADO

6. ANNEX 2: PARTICIPANTS

Name	Address	Telephone no.	Email	SGMOS-09-04	SGMOS-09-05
STECF members					
Bailey, Nick	FRS Marine Lab. Victoria Road AB11 9DB Aberdeen, UK	+44(0)1224295 398	baileyn@marlab.ac.uk	X	X
Vanhee, Willy	ILVO, Hospitaalstraat, 8400 Oostende, Belgium	+32(059)43308 3	wvanhee@pandora.be	X	X
Invited experts					
Davie, Sarah	Marine Institute Rinville, Oranmore, Ireland	+353(0)913872 00	sarah.davie@marine.ie	X	X
Barratt, Katy	Scottish Executive Environment and Rural Affairs D, Robb's Loan, EH14 1TY, Edinburgh, UK	131-244-6437	katy.barratt@scotland.gsi.gov.uk	X	
Ulrich Rescan, Clara	DTU-Aqua Charlottenlund Castle, 2920 Charlottenlund, Denmark	+4533963395	clu@difres.dk	X	X
Silva, Cristina	INRB-L/IPIMAR,A V. de Brasília, 1449-006, Lisboa, Portugal	351-213026745	csilva@ipimar.pt	X	
González Herraiz, Isabel	Instituto Español de Oceanografía, Paseo Marítimo Alcalde Francisco Vázquez, 10, 15001 A Coruña, Spain	+34981205362, ext132	isabel.herraiz@co.ieo.es	X	
Holmes, Steven	Fisheries research services, Victoria road, Aberdeen, UK	+44(0)1224 295507	s.holmes@marlab.ac.uk	X	X
Williamson, Kevin	Marine and Fisheries Agency, 3-8 Whitehall Place, SW1A 2HH ,London, UK	+ 442072708070	kevin.williamson@mfa.gsi.gov.uk	X	X
Jardim, Erneso	IPIMAR Av.Brasilia, Lisboa, Portugal	+351 213 027 093	ernesto@ipimar.pt	X	X

Reeves, Stuart	Cefas, Pakefield Road NR33 0HT, Lowestoft, UK	01502 524510	stuart.reeves@cefas.co.uk	X	
Kempf, Alexander	Institute of Sea Fisheries, Palmaille 9, 22767Hamburg, Germany		alexander.kempf@vti.bund.de	X	X
Lövgren, Johan	FIV Sweden, PO Box 4, 45330, Lysekil, Sweden		johan.lovgren@fiskeriverket.se	X	X
Coppin, Frank	IFREMER 150, quai Gambetta, 62321, Boulogne sur mer, France	+33321995610	franck.coppin@ifremer.fr	X	
Vermand, Youen			Youen.Vermard@ifremer.fr		X
Vérin, Yves	IFREMER 150, quai Gambetta, 62321, Boulogne sur mer, France	+33321995608	Yves.Verin@ifremer.fr		X
JRC Experts					
Rätz, Hans-Joachim	Joint Research Centre (IPSC), Maritime Affairs Unit Via E. Fermi, 2749, 21027 Ispra (Varese), Italy	+390332786073	hans-joachim.raetz@jrc.ec.europa.eu	X	X
Stockhausen, Björn	Joint Research Centre (IPSC), Maritime Affairs Unit Via E. Fermi, 2749, 21027 Ispra (Varese), Italy	+39 0332 789683	bjorn.stockhausen@jrc.ec.europa.eu	X	X
European Commission					
Daniel, Patrick	DG Mare, Rue Joseph II, 79, 1000 Bruxelles, Belgium	+32 2 513 39 93	patrick.daniel@ec.europa.eu	X	
Lindemann, Jan Henning	DG Mare, Unit C2, Rue de la loi, Jo II 79 02/101 200, B-1040 Brussels, Belgium	+32 2 29 87086	Jan-Henning.LINDEMANN@ec.europa.eu		X
Goldmanis, Edgars	DG Mare Unit E2, Office J-79 05/06Rue Joseph II, 79, 1049 Brussels, Belgium	+32-2-2964526	Edgars.GOLDMANIS@ec.europa.eu		X
STECF Secretariat					

Folisi, Floriana	Joint Research Centre (IPSC), Maritime Affairs Unit Via E. Fermi, 2749, 21027 Ispra (Varese), Italy	+39 0332 78 3555	Floriana.FOLISI@ec.europa.eu		X
Vasilaki, Marousa	Joint Research Centre (IPSC), Maritime Affairs Unit Via E. Fermi, 2749, 21027 Ispra (Varese), Italy	+39 0332 78 9329	Marousa.VASILAKI@ec.europa.eu		X
Rätz, Hans-Joachim	Joint Research Centre (IPSC), Maritime Affairs Unit Via E. Fermi, 2749, 21027 Ispra (Varese), Italy	+390332786073	hans-joachim.raetz@jrc.ec.europa.eu	X	
Observer					
Park, Mike	Scottish Whitefish Producers Association, UK	01346514545	m.park@btconnect.com	X	

7. ANNEX-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 24305 EN **– Joint Research Centre – Institute for the Protection and Security of the Citizen**
Title: Scientific, Technical and Economic Committee for Fisheries. Report of the SGMOS-09-05 Working Group on Fishing Effort Regime in the Baltic.
Author(s): Bailey N., Vanhee W., Davie S., Barratt K., Ulrich Rescan C., Silva C., González Herraiz I., Holmes S., Williamson K., Jardim E., Reeves S., Kempf A., Lövgren J., Coppin F., Vermand Y., Vérin Y., Stockhausen, B., Rätz H.-J.

Luxembourg: Office for Official Publications of the European Communities
2010 – 86 pp. – 21 x 29.7 cm
EUR – Scientific and Technical Research series – ISSN 1018-5593
ISBN 978-92-79-15354-9
DOI 10.2788/80511

Abstract
SGMOS-09-05 meeting was held on 28 September - 2 October 2009 in Barza d' Ispra (Italy). 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 2009 plenary meeting and by written procedure in March 2010.

How to obtain EU publications

Our priced publications are available from EU Bookshop (http://bookshop.europa.eu), where you can place an order with the sales agent of your choice.

The Publications Office has a worldwide network of sales agents. You can obtain their contact details by sending a fax to (352) 29 29-42758.

The mission of the JRC is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of EU policies. As a service of the European Commission, the JRC functions as a reference centre of science and technology for the Union. Close to the policy-making process, it serves the common interest of the Member States, while being independent of special interests, whether private or national.

LB-NA-24305-EN-N

JRC
EUROPEAN COMMISSION

ISBN 978-92-79-15354-9