# Technical report on the <br> Danish National Programme for collection of fisheries data in 2003 

by

Danish Directorate of Fisheries Danish Institute for Fisheries Research Danish Research Institute of Food Economics

Copenhagen 31. May 2004
1 Introduction. .....  3
1.1 National Correspondent .....  3
1.2 Co-operation and task sharing between Denmark and other Member States .....  3
1.3 Appreciation of the level of precision .....  3
2 Module of evaluation of inputs: fishing capacity and fishing effort ..... 4
2.1 C. Collection of data concerning fishing capacity .....  4
2.2 D. Collection of data related to fishing effort. .....  5
3 Module of evaluation of catches and landings .....  5
3.1 E. Collection of data related to catches and landings ..... 5
3.1.1 Collecting data on landings designated human consumption .....  5
3.1.2 Danish discard sampling .....  5
3.1.3 Recreational catches ..... 8
3.2 F. Collection of data concerning the catches per unit effort and/or effective effort of specific commercial fleets. .....  8
3.3 G. Eligibility of the scientific evaluation surveys of stocks .....  9
3.4 H. Biological sampling of catches: composition by age and by length. ..... 11
3.4.1 Sampling of age and length ..... 11
3.5 I: Other biological sampling. ..... 16
4 Module of evaluation of the economic situation of the sector ..... 16
4.1 Collection of economic data by groups of vessels ..... 16
4.1.1 Data sources ..... 16
4.1.2 Stratifying the population ..... 16
4.1.3 Vessels not included in the population ..... 17
4.1.4 Complementary description of vessels not included in the population ..... 18
4.1.5 Selection of the sample ..... 19
4.1.6 Statistical calculation, weighing the sample ..... 20
4.1.7 Data in the Account statistics for Fishery ..... 20
4.1.8 Data for basic economic evaluation ..... 20
4.1.9 Supplementary data for improving the economic evaluation (extended programme) ..... 21
4.1.10 Completion of the aims in the programme for 2003. ..... 22
5 Collection of data concerning the processing industry. ..... 22
5.1 Analysis of data collection strategies ..... 22
5.2 Data sources ..... 23
5.3 Industrial Commodity Statistics ..... 24
5.4 Data analysis of the Industrial Commodity Statistics. ..... 24
5.5 Account Statistics ..... 25
5.6 Data analysis of the Account Statistics ..... 25
5.7 Raw Material Statistics ..... 25
5.8 Data analysis of the Raw Material Statistics ..... 26
5.9 Collecting and processing of existing data and complementary data ..... 26
5.10 Capacity utilisation ..... 27
5.11 Regional data ..... 27
5.12 Data from The Directorate of Fisheries ..... 27
5.13 Transport document ..... 28
6 Coordination ..... 28
6.1 International coordination ..... 28

## TECHNICAL REPORT OF ACTIVITY 2003 - DENMARK

## 1 Introduction.

In the framework of Commission Regulation (EC) $\mathrm{N}^{0} 1639 / 2001$ establishing the Minimum and Extended Community Programmes for the collection of data in the fisheries sector and laying down detailed rules for the application of Council Regulation (EC) ${ }^{0} 1543 / 2000$ ", hereafter in this programme called "the Implementation Regulation", Denmark has submitted a proposal for the year 2003.

This report gives a technical report of activity of the work carried out in 2003 with reference to the aims described in the proposal and the requirements listed in the Implementation Regulation.

The work in Denmark was carried out by 3 partners:

1) Danish Institute for Fisheries Research (DIFRES) is a Public Research Institution which carries out research, investigations and provides advice concerning sustainable exploitation of live marine and fresh water resources. Moreover, processing and improvement of fish products as well as quality assurance in the fish industry are important parts of the research areas of the institution.
2) Danish Directorate of Fisheries (FD) performs control and authority exercises at the commercial fisheries and the recreational and game fisheries.
3) The Danish Research Institute of Food Economics (FOI) is a Public Research Institute. The researchers and academic staff of the Institute have backgrounds and experience in economics, agricultural and resource economics, agronomy, as well as a wide range of statistical methods and applied research tools.

The Danish Institute for Fisheries Research is acting as coordinator for the Danish Programme. A Steering Group has been established with members from all three Institutes involved in the programme. The main objective of the Steering Group is to coordinate of the work under the programme.

### 1.1 National Correspondent

Denmark has assigned the Danish Institute for Fisheries Research as the National Correspondent. Contact person has for 2003 been Fishery Adviser Jørgen Dalskov

### 1.2 Co-operation and task sharing between Denmark and other Member States

Collection of information on fishing capacity, fishing effort, economic and landings statistics have been carried out entirely on a national basis. Biological information on catches, information collected by research vessels and information on discards have been co-ordinated internationally by several ICES working-, study- and planning groups and carried out in close co-operation with research institutes in Member States and third countries.

### 1.3 Appreciation of the level of precision

Commission Regulation 1639/2001 defines three levels of precision in chapter 1B in the Annex. Some quantitative targets required by the Regulation also require to meet a defined level of precision when they are not based on total information and are estimated by samples. If the targets are based on all observations no indication of level of precision is required.
Most countries experience problems with the interpretation and calculation of the level of precision as described in the Regulation. The ICES Planning Group on Commercial Catch, Discards and Biological Sampling [PGCCDB], which deals with the international coordination of some elements of the Regulation, has initiated an international workshop which will deal with this subject. This workshop was held in Nantes (France) in February 2004.
Table 1-1 lists the requirements in the regulation with regard to the level of precision. The table also indicate in which way the Danish NP has met these requirements.

All commercial landings made in Denmark are recorded by the first hand buyer on individual basis and stored in a central database hosted by the Danish Directorate of Fishery. These data has been combined with the logbook data provided by the fishermen. Together these data give an exhaustive description of the amount of landings by species, commercial sorting, season, fishery and area. In that situation no level of precision has to be specified. No estimate of precision level is made for discard estimates as no agreed standard procedure are available yet. Therefore, it has not been possible to decide if the discard sampling in 2002 fulfils the levels of precision agreed in the contract. DIFRES takes active part in the ongoing work to develop such standard method and awaits the finalization of the development. In 2003 the discard sampling has therefore been accomplished on an effort level which equals the level of previous years and which has demonstrated results which are in agreement with the general understandings of the discard structure, volume and quality. In order to make the investigations most cost effective, the sampling effort has been concentrated on fisheries where an "a priori" knowledge points out a significant discard of commercial important species. This means, that e.g. the gillnet fishery only has been sampled to a very limited extent in 2003, while other fisheries has been samples more intensive. "Other biological parameters" are estimated every three or six years based on annual observations and will be reported in 2005 for the first time.

Table 1-1 Appreciation of the levels of precision in the Danish NP

| Summary table Precision Levels |  |  | Country | Denmark | $\mathbf{M P}+\mathbf{E P}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Reference year | 2003 |  |
| Module | Type of data | MP/EP | Required level of precision | Achieved level of precision | Method used |
| IIc-1 | table capacity | MP | all or level 3 | All | Census. |
| IId-1-i | table fuel |  | all or level 2 | N/A |  |
| IId1-ii | fishing effort by type of technique |  | all or level 2 | All | Census. |
| IId1-iii | specific fishing effort |  | all or level 1 | All | Census. |
| IIIe-1 | landings |  | all or 1,2,3 | All | Census. |
| IIIe-1 | discards |  | 1 or derogation | N/A |  |
| IIII-1 | biological parameters weight at age, maturity fecundity and sex ratio |  | 3 | 2005 |  |
| IIII-1 | biological parameters sex ratio by age or length |  | 2 | 2005 |  |
| IVj-1 | economic parameters vessels |  | 1 | N/A |  |

## 2 Module of evaluation of inputs: fishing capacity and fishing effort

This section refers to the sampling of fishing capacity and fishing effort as required by chapter II of the implementation regulation. The required data in Denmark have been collected through the EU logbook system and comprise the information for all vessels and all activities. The data are available in the Danish Directorate of fisheries logbook database.

No data collection has been carried out within the framework of the extended programme.

### 2.1 C. Collection of data concerning fishing capacity

The Danish Directorate of Fisheries operates an Oracle based relational database. The database holds all dimensional information from fishing vessels flying the Danish flag. This database contains, among others, the data about:

- Vessel name, vessel number
- Vessel type
- Age of the hull
- Dimensions of the vessel; GT, length, width, draught
- Engine power (kW))

The database allows extracting the information required on fishing capacity as specified in Annex III of the Regulation.

### 2.2 D. Collection of data related to fishing effort

The database, already mentioned in section 2.1 also contains logbook data on landings by:

- species
- vessel
- day
- fishing ground, area and square
- duration of trips in fishing days
- Gear type employed

At any time, data on fishing effort, aggregated as required in Annex V, VI and VII of the Regulation can be provided by FD. Costs for fuel and the cost price are not available in the database. Whenever needed, these data can be estimated based on the economic data provided by the FOI.

## 3 Module of evaluation of catches and landings

This section refers to the sampling of catches and landings as required by chapter III of the Implementation Regulation. No activities were proposed in the extended programme.

### 3.1 E. Collection of data related to catches and landings

No activities were proposed in the extended programme.

### 3.1.1 Collecting data on landings designated human consumption.

From the FD database an estimate of overall annual commercial landings can be provided by all species and area according to level 2 of geographical disaggregation of Appendix I in the Regulation. The estimate is based on all recorded landings in this database

For stocks mentioned in Appendix XII in the regulation, commercial landings can be disaggregated as indicated in that Appendix. Landings by weight of each segment identified in Appendix III in the regulation can be provided by species and quarter and, as regards the geographical origin of the catches, at the level of geographical disaggregation 2 according to Appendix I in the regulation. The value of the landings is also available in the FD database from the first sales registration.

In the NP, no activities we proposed with regard to recreational and game fisheries mentioned in Appendix XI in the regulation.

Fish can be landed as whole (un-gutted) or as gutted. Gutted the fish can be with or without head. A table with conversion factors for the weight of landed un-gutted fish into whole weight is given in Appendix 1

### 3.1.2 Danish discard sampling

Discards sampling in the EU has recently been coordinated by the ICES Planning Group on Commercial Catch, Discards and Biological sampling (PGCCDBS). DIFRES has chaired this planning group in 2003 and participated with three members at the coordination meeting of this group in March 2003.

The discard sampling in 2003 has been performed according to the policy laid down in the contract "Danish National Programme for collection of fisheries data" of $30^{\text {th }}$ of May 2002.
In total 325 days at sea were spend on 124 fishing trips during 2003 (Table 3.1.2-1). The trips are, due to difference in the fishing pattern, in general of longer duration in North Sea and Skagerrak (in average 5.7 days) than in Kattegat and the Baltic Sea (in average: 1.5 days). The number of hauls (stations) by trip is correspondingly bigger in the North Sea compared to the Baltic Sea.

Table 3.1.2-1. The number of sampling trips and number of days on board commercial vessels in 2003 by sea area.

|  | Area |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Skagerrak | Kattegat | 22 | 24 | 25 | 4 a | 4 b | Total |
| Number of days | 62 | 43 | 47 | 34 | 14 | 70 | 55 | 325 |
| Number of trips | 20 | 21 | 43 | 13 | 14 | 6 | 7 | 124 |

Table 3.1.2-2. Summary table of length and age sampling of catches and discards.


On each station all species were length measured separately for retained and discarded fish. The retained part of the catch was not stratified on commercial sorting as only samples from marked sampling (where data are stratified on commercial sortings) are applied to the total landings. A total of more than 80,000 individuals were measured. Of those were 40,925 discarded fish. The number of individuals measured for length is given in summary table 3.1.2-2 by species, area and catch category. In order to be able to age determinate the discard, 4097 otoliths from discard individuals (approximately 100 otoliths per species, area and quarter) were read covering all assessment relevant species.

From all discards trips a standardized trip report was generated which was sent to the skipper of the vessel.
Disseminations of data: All data collected in Kattegat and the Baltic Sea are uploaded to the international common database FishFrame. Data included in FishFrame are the basis for all discard estimates from the Baltic area used in the general assessment of cod stocks.

### 3.1.3 Recreational catches

No substantial catches are made in Denmark in recreational fisheries except for salmon which based on interviews is estimated yearly to be approximately 3000 individuals. This fishery is subject to a pilot study in 2004. The recreational fishery for salmon in the Danish waters is a trolling fishery east and north of Bornholm in Sub-division 25.

### 3.2 F. Collection of data concerning the catches per unit effort and/or effective effort of specific commercial fleets.

## Minimum programme:

Denmark has produced CPUE series used in assessments on the following numbers of stocks:
Cod in the Western Baltic (Sub-division 22-24)
Danish Gillnetters
Danish Trawlers
Danish Seiners
Cod in Kattegat (ICES sub-division IIIa South)
Danish Trawlers 70-89mm mesh size
Danish Trawlers 105-120mm mesh size
Danish Seiners
Plaice in Kattegat (ICES sub-division IIIa South)
Danish Gillnetters
Danish Trawlers
Danish Seiners
Sole in Kattegat and Skagerrak (ICES sub-area III)
Danish Trawlers 70-89mm mesh size
Danish Trawlers 90-104mm mesh size
Sandeel in the North Sea (ICES sub-area IV)
Norway pout in the North Sea (ICES sub-area IV)
Pandalus in the North Sea (ICES sub-area IV)
Pandalus in Skagerrak (ICES sub-division IIIa North)
Nephrops in the North Sea (ICES sub-area IV)
Nephrops in Kattegat and Skagerrak (ICES sub-area III)

## Extended Programme:

No data collection has been carried out within the framework of the extended program.

### 3.3 G. Eligibility of the scientific evaluation surveys of stocks

The Danish Institute for Fisheries Research command three research vessels. The R/V DANA which is a stern trawler with a l.o.a. of 78 meter. DIFRES uses R/V DANA when conducting the International Trawl Survey (IBTS), the Baltic International Trawl Survey (BITS) and the Herring Acoustic Survey (HERSUR).

The smaller Danish research vessel R/V HAVFISKEN, a 20 GRT side trawler is used at the BITS survey in Kattegat and the Western Baltic area.

The smallest of the Danish research vessels R/V HAVKATTEN is not used for surveys conducted within the framework of this programme.

All surveys listed in this programme were internationally co-ordinated by ICES Working- and Planning Groups. The coordination costs are included in the cost statement in this chapter.

Summary cruise reports for each survey are given in Appendix 2. In general, the length composition of all fish species is measured in all surveys. In the bottom trawl surveys also the composition of other benthic species is recorded. During the surveys additional biological characteristics were collected (age, maturity etc.). All fish survey data are stored in a DIFRES database

Table 3.3-1. Efforts of priority 1 surveys.


### 3.4 H. Biological sampling of catches: composition by age and by length

This section deals on the biological sampling of the landings only described in chapter H in the regulation. The biological sampling of discards is described in section 3.1.2 and the sampling of recreational catches is not included in the NP.

### 3.4.1 Sampling of age and length

The age- and length measurements of the landings were carried out by DIFRES. These include landings by foreign vessels landed in Denmark.

Demersal species are landed and sold at the fish markets, where samples are taken by DIFRES. In most demersal sampling schemes the length measured individuals are age determined and hence no age-length key is applied. This implies for these species that number of age readings is equal to number of length measurements, while Reg. 1639/2001 is generally requiring a larger number of length measurements than age readings. For demersal species that are sold in size grade categories, the sampling is stratified on size grades. In general, whole boxes are sampled from the market.

Pelagic species like herring, sprat, mackerel and blue whiting are caught by pelagic trawlers, and biological samples are taken by inspectors in the landing harbours. Since it is not known in advance, which areas are visited and which species are targeted, DIFRES has limited control on the origin and species composition of these samples. Therefore some areas may be sampled less than required and others may be in excess of what is required according the NP. All the fish in these samples are measured and then a representative age sample of 10 fish pr cm group is taken. This way of sampling for age and length results in some cases in a much higher number of length measurements than required by Reg. 1639/2001.

In the following paragraphs comments are given for sampling levels in 2003 for the different species in relation to the NP . The sampling level related to the planed according to the EU sampling directive (Commission Regulation (EC) $\mathrm{N}^{0}$ $1639 / 2001$ ) is given in summary table

## Anglerfish

Denmark has asked for derogation for Anglerfish with respect to age readings, due to the small number of age samples required. Length sampling has been carried out according to the required sampling level.

Disseminations of data:
Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (ICES).

## Atlanto-Scandian Herring

Atlanto-Scandian Herring in ICES division IIa have been samples with $218 \%$ for length measurements and the required level for age determinations.

Disseminations of data:
Northern Pelagic and Blue Whiting Fisheries Working Group (ICES).

## Blue whiting

Samples from the blue whiting fishery have been achieved with around twice as many measurements as required.
Disseminations of data:
Northern Pelagic and Blue Whiting Fisheries Working Group (ICES).

## Cod

For cod, the required sampling levels have for length measurements have nearly been reached in the four different areas. Because all length measured fish also are age in the Danish sampling scheme, the achieved sampling level for age is higher that the required level.

Disseminations of data:
Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (ICES).

## Baltic fisheries Assessment Working Group (ICES).

## Haddock

Have been sampled in excess of the required level
Disseminations of data:
Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (ICES).

## Hake

Hake have been sampled a the required level, except for Skagerrak where only 2 samples have been achieved of the required 6-7 samples.
Denmark has no expertise in age determination of this species, and therefore the otoliths taken from all the length measured fish have not been read yet.

Disseminations of data:
Working Group on the Assessment of Southern Shelf Stocks of Hake, Monk and Megrim (ICES).

## Herring

Herring have been sampled above required levels for ICES division IIIa and ICES sub area IV. For ICES divisions IIIbcd only $62 \%$ of the length samples and $41 \%$ of the age samples have been achieved.

Disseminations of data:
Herring Assessment Working Group of the Area South of 62N (ICES).
Baltic Fisheries Assessment Working Group (ICES).
Northern Pelagic and Blue Whiting Fisheries Working Group (ICES).

## Horse mackerel

The reason for not being able to fulfil the requirements for horse mackerel is that sampling is limited to by-catch in fisheries for other target species in the small meshed fishery for reduction purposes.

Disseminations of data:
Working Group on the Assessment of Mackerel, Horse Mackerel, Sardine and Anchovy (ICES).

## Lemon Sole (and witch flounder)

As the sampling follows the standard sampling scheme and samples have to be taken in each size-class and year around with at least one sample in each quarter and therefore the level of sampling exceeds the required level.

Disseminations of data:
Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (ICES).

## Mackerel

Denmark have not used its quota in area Vb and therefore no samples have been taken in this area. The landings in 2003 from the others areas consists of only a few very large landings, landed in a very short time span, and for this reason it has not been possible to sample the required amount of samples for measurements.

Disseminations of data:
Working Group on the Assessment of Mackerel, Horse Mackerel, Sardine and Anchovy (ICES).

## Norway lobster

The numbers of samples is less than required, but the total number of measurements is higher when combined with the measurements taken at sea, during discard sampling at sea.

Disseminations of data:
Working Group on Nephrops Stocks (ICES).

## Plaice

Plaice have been sampled in excess of the required program, except for plaice in ICES division IIIbcd where only 35\% of the age readings have been achieved. All the fish that have been length measured have also been samples for otoliths, but because of changes in staff the new age reader have not jet been able to do the age determinations.

Disseminations of data:
Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (ICES).

## Saithe

Have been sampled in excess of the requirements.

Disseminations of data:
Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (ICES).

## Salmon

Salmon have been sampled in excess of the requirements, mainly because of high amount of international landings to Danish markets.

Disseminations of data:
Baltic Salmon and Trout Assessment Working Group (ICES).

## Sandeel

The numbers of samples is less than required, but do not reflect the actual numbers of measured fish, because the samples have not been entered into the common database.

Disseminations of data:
Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (ICES).

## Shrimp

Have been sampled in excess of the required level, in order to cover the variation between the different functional units of the stock.

Disseminations of data:
Pandalus Assessment Working Group (ICES).

## Sole

Have been sampled in excess of the required program.
Disseminations of data:
Baltic Fisheries Assessment Working Group (ICES).
Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (ICES).

## Sprat

Sprat have been sampled close to the required sampling levels, except for ICES divisions IIIbcd where only 31\% of the required aging level have been reached. The reason for not being able to fulfil the requirements for Sprat in the Baltic have been problems with getting samples from the fisheries inspectors and that some of the samples were deteriorated to a condition not suitable for scientific measurement.

Disseminations of data:
Herring Assessment Working Group for the Area south of 62N (ICES).
Baltic Fisheries Assessment Working Group (ICES).

## Turbot and Brill

Have been samples below the required level, and Denmark has not yet any expertise in age determination of these species.

Disseminations of data:
Baltic Fisheries Assessment Working Group (ICES).

Table 3．4．1－1．Summary table of length and age sampling of catches and discards．

| Summary table Length \＆Age Sampling of Landings |  |  |  |  |  | Country |  | Denmark |  | M P |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Refernce year |  | 2003 |  |  |  |
| Species | Area | Length sampling |  |  |  | Age sampling |  |  |  | 景 | 号旁旁 |
|  |  | Required | Planned | Achieved | \％achieved | Required | Planned | Achieved | \％achieved |  |  |
| Anglerfish | IIa，IV a－c | 102 | 102 | 272 | 266 | 102 | 102 | 0 | 0 |  |  |
| Atlanto－Scandian Herring | 11 a | 364 | 364 | 794 | 218 | 182 | 182 | 183 | 100 |  |  |
| Blue whiting | $\mathrm{I}, 11, \mathrm{~V}, \mathrm{~V}$ I，V $11, \mathrm{x}$ II， x IV | 1528 | 1528 | 4121 | 270 | 764 | 764 | 1482 | 194 |  |  |
| Cod | llian | 2840 | 2840 | 2081 | 73 | 1420 | 1420 | 2053 | 145 |  |  |
| cod | 111 as | 864 | 864 | 1090 | 126 | 864 | 864 | 1067 | 123 |  | 3 |
| Cod | 111 bcd | 5283 | 5283 | 4795 | 91 | 2642 | 2642 | 4578 | 173 |  | 3 |
| cod | IV a－c | 2118 | 2118 | 1715 | 81 | 1059 | 1059 | 1703 | 161 | $\times$ |  |
| Haddock | 111 a | 673 | 673 | 1372 | 204 | 673 | 673 | 1367 | 203 |  |  |
| Haddock | IV a－c | 507 | 507 | 1781 | 352 | 253 | 253 | 1572 | 621 |  |  |
| Hake | 111 a | 375 | 375 | 102 | 27 | 375 | 375 | 0 | 0 |  |  |
| Hake | IV a－c | 274 | 274 | 314 | 115 | 274 | 274 | 0 | 0 |  |  |
| Herring | 111 a | 3338 | 3338 | 12118 | 363 | 3338 | 3338 | 5399 | 162 |  |  |
| Herring | 111 bcd | 4630 | 4630 | 2870 | 62 | 2315 | 2315 | 938 | 41 |  |  |
| Herring | IV a－c | 1923 | 1923 | 7132 | 371 | 961 | 961 | 1602 | 167 |  |  |
| Horse mackerel | II，IV a－c | 220 | 220 | 26 | 12 | 55 | 55 | 0 | 0 |  |  |
| Horse mackerel | $\mathrm{Vb}, \mathrm{V}$ ，VII，VIII，XII，XIV | 649 | 649 | 547 | 84 | 324 | 324 | 168 | 52 |  |  |
| Lemon sole and $W$ itch flounder | IVa－c， | 181 | 181 | 768 | 424 | 181 | 181 | 224 | 124 |  |  |
| Mackerel | IVa－c，lllbcd | 5712 | 5712 | 887 | 16 | 5712 | 5712 | 866 | 15 |  |  |
| Mackerel | vb | 228 | 228 | 0 | 0 | 114 | 114 | 0 | 0 |  |  |
| Norway lobster | 111 a | 6614 | 6614 | 2692 | 41 | 0 | 0 |  |  |  | 1 |
| Norway lobster | IV a－c | 3480 | 3480 | 1416 | 41 | 0 | 0 |  |  |  | 1 |
| Norway pout | IIIa，IV a－c | 3133 | 3133 | 1477 | 47 | 3133 | 3133 | 1226 | 39 |  | 1 |
| Plaice | IIIaN | 2492 | 2492 | 4180 | 168 | 2492 | 2492 | 4180 | 168 |  |  |
| Plaice | 111 as | 712 | 712 | 2388 | 335 | 712 | 712 | 534 | 75 |  | 3 |
| Plaice | 111 bcd | 1350 | 1350 | 1069 | 79 | 1350 | 1350 | 473 | 35 |  |  |
| Plaice | IV a－c | 1462 | 1462 | 2954 | 202 | 731 | 731 | 2954 | 404 |  |  |
| S aithe | IIa，IIIa，Illbcd，IVa－c | 2799 | 2799 | 5547 | 198 | 2799 | 2799 | 5540 | 198 |  |  |
| Salmon | $111 \mathrm{~b}-\mathrm{d}$ | 244 | 244 | 1174 | 482 | 244 | 244 | 677 | 278 |  |  |
| Sandeel | Na－c，（incl．Norw．Wat． | 16172 | 16172 | 13290 | 82 | 16172 | 16172 | 3276 | 20 |  | 1 |
| Shrimp | IIIa | 1078 | 1078 | 5000 | 464 | 0 | 0 |  |  |  | 2 |
| Shrimp | 11 a | 373 | 373 | 2500 | 671 | 0 | 0 |  |  |  |  |
| Sole | 111 a | 420 | 420 | 734 | 175 | 420 | 420 | 724 | 172 |  | 2 |
| Sole | IV a－c | 153 | 153 | 235 | 154 | 76 | 76 | 233 | 306 |  |  |
| Sprat | 111 a | 3350 | 3350 | 8350 | 249 | 3350 | 3350 | 3079 | 92 |  |  |
| Sprat | 111 bcd | 2005 | 2005 | 6318 | 315 | 1003 | 1003 | 1150 | 115 |  |  |
| Sprat | IV a－c，V IId | 5103 | 5103 | 3853 | 76 | 5103 | 5103 | 1567 | 31 |  |  |
| Turbot \＆Brill | IVa－c，VIId | 132 | 132 | 69 | 52 | 132 | 132 | 0 | 0 |  |  |

Page 15 of 81

### 3.5 I: Other biological sampling

In addition to the age and length sampling, biological parameters should be collected routinely on growth (age/length and length/weight), maturity at age and length, sex ratio's at length and at age and on gonad weight and fecundity. The results are to be sampled on a three annually basis (six annual basis for nephrops). The collection of these data has been included in the sampling programmes on landings, discards and surveys and will be reported in 2005.

## 4 Module of evaluation of the economic situation of the sector

### 4.1 Collection of economic data by groups of vessels

### 4.1.1 Data sources

The Danish programme for section J covering the information for the Community Programme, as defined in appendix XVII and XVIII of Regulation (EC) No 1639/2001, will be completed by two sources of data. The first being register data from the administrative and statistical registers of the Danish Directorate of Fisheries (FD) and secondly by sample statistics compiled at the Danish Research Institute of Food Economics (FOI).

The administrative and statistical registers in FD are the basic source to information about the Danish fishery. The registers relevant to the collection of economic information for groups of vessels are: the Register of Fishing Vessels, the Register of Fishermen/Vessel Owners, the Sales Note Register and the Logbook Register. These registers are fully comprehensive in the sense that all fishery related activities are registered for all individuals, which means that statistical analysis based on the registers can cover all activities in the fishery and on the first-hand market for fish, when that is required (e.g. the official catch statistics).

For economic data like cost and earnings, which are not subject to administrative control by the authorities there is no need to build a comprehensive register. Instead it is more cost efficient to use a statistical sample. FOI obtains each year an extract from the FD registers containing information on all active vessels for the year before. This extract is used to analyse and stratify the population of fishing units before the sample for the year is drawn.

### 4.1.2 Stratifying the population

The information used to build a database containing the population for a year is extracted from the FD registers. The information is delivered on 3 files containing:

Identification of a vessel owner
Vessel characteristics including starting and finishing date for a vessel version
Catch in live weight quantities and value per species for each vessel version
All 3 files include a decisive owner identification number, which is used to merge the data. Thus the population database has information on the production per species for each fishing unit.

After identification of all marketed fish by fishing unit (fisherman/fishing firm/fishing vessel) the population of fishing units is limited to all commercial fishermen and fishing firms, who had owned an active registered fishing vessel for at least 6 month of the year, and had a total sale of fish above a fixed minimum measured as SCV (see below). The threshold value, which is updated every year proportional to changes in the price of fish, was EUR 30,900 in 2003.

The remaining population covers about $98 \%$ of the total output in the Danish fishery. These vessels constitute the economically active fleet, which has been input of physical capacity used to produce this year's catch of fish. The aggregated value of the omitted (small-scale) fishery is only about $2 \%$ of the total fishery.

Before drawing the sample the population is stratified according to economic size, vessel segment, product combination, and region. The stratification by economic size is based on the total Standard Catch Value (SCV) for the fishing firm/vessel, which is the weighted sum of the production of that vessel, where the catch of each species (live weight quantities) has been weighted by the average live weight price of that species. The population is divided into 11 economic size groups.

From the year 2001 the categorisation of the population by vessel segments has been according to the length groups and type of fishing technique stipulated in appendix III of Regulation (EC) No 1639/2001. For national purposes the length group 12 to 24 metres has been divided into 3 subgroups. The total number of segments used for categorising the Danish fishery is then 25 , which means that the resulting stratification matrix has $25 * 11$ cells.

Table 4.1.2 Basic segmentation of vessels in the Danish fishing fleet 2003 ( 25 groups).

| Fishing technique | $<12 \mathrm{~m}$ | 12-14.9m | 15-17.9m | 18-23.9m | 24-39.9m | $>=40 \mathrm{~m}$ | All vessels |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fixed net/traps | 60 |  |  |  |  |  | 60 |
| Gill netters | 258 | 65 | 35 | 22 |  |  | 380 |
| Trawlers * | 26 | 134 | 110 | 105 | * 124 | * 33 | 532 |
| Purse seiners |  |  |  |  |  | 9 | 9 |
| Danish seiners |  | 15 | 20 | 34 |  |  | 69 |
| Beam trawlers |  |  |  |  | 8 |  | 8 |
| Polyvalent | 48 | 33 | 8 | 7 | 4 |  | 100 |
| Shrimpers |  |  |  |  |  |  | 25 |
| Mussel dredgers |  |  |  |  |  |  | 61 |
| All vessel categories | 392 | 247 | 173 | 168 | 136 | 42 | 1244 |

Note: Shrimpers and Musseldredgers are not divided among length groups.

* Trawlers 24-39.9m and trawlers >=40m are split up into two groups (industrial fishery and other fishery).

The categorisation of vessels by length include identification of vessels less than 10 metres to make allowance for the more detailed disaggregating of vessels in the extended programme (appendix IV of Regulation (EC) No 1639/2001), but this subgroup has not yet been installed in the stratification procedure.

### 4.1.3 Vessels not included in the population

When collecting economic information for the fishery it is of vital importance to make a distinction between the active fleet participating in the production and the non-active fleet of unused registered vessels. This issue was discussed during the Workshop on Economic Indicators (Paris, 10-14 May 2004), where it became clear, that for some countries the distinction between active and non-active vessels is not present, which completely subverts the affirmed precision level of the calculated statistics for both capacity and economic measures.

In the Danish programme it is considered an important task to achieve a precise delimitation of the exact physical capital used in the fishery. Therefore we exclude redundant capital, which may only exist in the register due to administrative rules or privileges.

The Danish register of fishing vessels holds at December $31^{\text {st }} 2003$ more than 3,500 vessels, of which more than 600 have not landed fish in the year 2003. The landings in 2003 are registered on 2969 different vessel-versions. The versioning is important when the vessel have been owned by several fishermen over the year, thus the catches can be counted for each owner separately.



Table 4.1.3 Vessels with total sale of fish below the threshold value 2003 (EUR 30,900).

| Fishing technique | <12m | 12-14.9m | 15-17.9m | 18-23.9m | 24-39.9m | $>=40 \mathrm{~m}$ | All vessels |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fixed net/traps | 548 |  |  |  |  |  | 548 |
| Gill netters | 504 | 18 | 3 | 2 |  |  | 571 |
| Trawlers | 14 | 22 | 3 | 3 | 5 | 0 | 47 |
| Purse seiners |  |  |  |  |  | 0 | 0 |
| Danish seiners |  | 3 | 3 | 6 |  |  | 12 |
| Beam trawlers |  |  |  |  | 0 |  | 0 |
| Polyvalent | 62 | 7 | 2 | 1 | 0 |  | 72 |
| Shrimpers |  |  |  |  |  |  | 2 |
| Mussel dredgers |  |  |  |  |  |  | 3 |
| Other vessels | 4 |  |  |  |  |  | 4 |
| All vessel categories | 1132 | 50 | 11 | 12 | 5 | 0 | 1215 |

Note: The table only includes vessels with registered landings in 2003.

### 4.1.4 Complementary description of vessels not included in the population

As recommended by the recently hold Workshop on Economic Indicators complementary analysis will be made to assess the economics of the vessels not included in the definition of the population of commercial fishermen/fishing firms.

From an overall comparison of statistical tables from the vessel register with the tables above, showing vessels with landings in 2003, it can be concluded, that the about 600 vessels with no economic activity are either very small boat/dinghy/rowing boat or the occasional vessel under repair/construction. About $2 / 3$ of these small boats are owned by full-time and $1 / 3$ by part-time fishermen. These fishermen are either working as hired crew on other vessels or they may own other vessels, which they use to provide their income.

The table 4.1 .3 shows that only 78 of the vessels with a total value of landings below the threshold value are above 12 metres. Further analysis disclosed that $2 / 3$ of these vessels were active less than six months, some even down to only 1 day, which can occur when the vessel shifts between several owners during the year.

In the preparation of the accounting statistics for 2003 effort will be made to assess relevant economic parameters for vessels with total revenue below the threshold value. The table below shows that only about $1 / 4$ of these vessels have sold fish for more than 10,000 EUR.

Table 4.1.4 Vessels with total sale of fish below the threshold value 2003 (EUR 30,900).

| Total revenue 2003 | $<12 \mathrm{~m}$ | $12-14.9 \mathrm{~m}$ | $15-17.9 \mathrm{~m}$ | $18-23.9 \mathrm{~m}$ | $24-39.9 \mathrm{~m}$ | Other <br> vessels | All vessels |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Less than 10,000 EUR | 877 | 27 | 7 | 6 | 0 | 6 | 923 |
| $10,000-19,999$ EUR | 150 | 14 | 1 | 3 | 3 | 2 | 173 |
| $20,000-30,900$ EUR | 101 | 9 | 3 | 3 | 2 | 1 | 119 |
| All $<$ threshold value | 1128 | 50 | 11 | 12 | 5 | 9 | 1215 |

### 4.1.5 Selection of the sample

In a stratified random sampling the precision of the estimate for the population depends on the allocation of the sample on the strata. The optimal allocation is reached when the size of the sample in a stratum is proportional with the dispersion of the variable in that stratum. This means that the bigger fraction should be selected from the strata of big size firms.

The process of selecting the sample for the account statistics is initiated by calculating the optimal selection fraction when estimating total SCV for the economic size groups. Then the selection percentages are set for the column total (all vessel segments) and the number of units to be drawn in each cell to give the best possible fit for total SCV for each vessel segment is calculated.

The number of fishing firms to be drawn in each cell is then randomly selected among the firms available for selection. In 2003 the population numbered 1244 fishing units, but only 405 of these units were available for selection as it is voluntary to participate in the statistics. 314 units were selected for the sample in 2003 . The selection cannot be considered a genuine random selection, when a part of the stratum is not open for selection. But it gives a far better sample than it would, having selected a sample from the total population and maybe due to voluntary participation only getting a respond from $50 \%$ of the sample.

Even though participating in the sampling programmes is voluntary, this applies only to the situation before the sample is drawn. After the sample has been drawn, the accountants must report the account for those of their clients, who have been selected for that year. Every year before the sample is drawn, each accountant signs a contract with the institute in which their clients available for selection that year are listed. Nevertheless due to specific reasons (death, accident, retirement, or excessive delay by the accountant), it is necessary to find substitutes for about $4 \%$ of the selected accounts. The substitutes are of course chosen to match the categorisation criteria of the cancelled accounts.

The 11 economic size groups are used to fine tune the sample selection process. Subsequent only 5 groups are used in the weighting procedure and in the final statistics. The table below shows the number of accounts selected, but here aggregated from vessel segments to length groups.

Table 4.1.5 Population and sample by length groups and economic size class 2003

| Vessel- <br> Length groups |  | -------- Yearly landings measured as SCV, Mio. DKK --------- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{array}{r} \text { Under } \\ 0.35 \end{array}$ | $\begin{array}{r} 0.35- \\ 0.79 \end{array}$ | $\begin{array}{r} 0.80- \\ 1.49 \end{array}$ | $\begin{aligned} & 1.5- \\ & 2.99 \end{aligned}$ | 3.00 and more | $\begin{array}{r} \text { All } \\ \text { vessels } \end{array}$ |
| Vessels less | Number in population | 117 | 203 | 66 | 4 | 2 | 392 |
| than 12 metre | Number in sample | 15 | 24 | 16 | 1 | - | 56 |
| Vessels | Number in population | 7 | 76 | 106 | 57 | 1 | 247 |
| 12 to 14,9 metre | Number in sample | - | 16 | 21 | 11 | 1 | 49 |
| Vessels | Number in population | 2 | 6 | 53 | 87 | 25 | 173 |
| 15 to 17,9 metre | Number in sample | - | 1 | 16 | 20 | 13 | 50 |
| Vessels | Number in population | 1 | 2 | 18 | 75 | 72 | 168 |
| 18 to 23,9 metre | Number in sample | - | 1 | 5 | 17 | 34 | 57 |
| Vessels | Number in population | - | 1 | - | 8 | 127 | 136 |
| 24 to 39,9 metre | Number in sample | - | - | - | 4 | 51 | 55 |
| Vessels | Number in population | - | - | - | - | 42 | 42 |
| over 40 metre | Number in sample | - | - | - | - | 23 | 23 |
| Special fisheries | Number in population | - | 2 | 9 | 56 | 19 | 86 |
|  | Number in sample | - | - | 2 | 15 | 7 | 24 |
|  | Page 19 of 81 |  |  |  |  |  |  |


| All length groups | Number in population | 127 | 290 | 252 | 287 | 288 |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
|  | Number in sample | 15 | 42 | 60 | 68 | 129 |
|  | Sample size | $12 \%$ | $14 \%$ | $24 \%$ | $24 \%$ | $45 \%$ |

### 4.1.6 Statistical calculation, weighing the sample

Based on the population database it is relatively straightforward to calculate the total SCV as well as the average SCV per firm for each cell in the stratification matrix. These results are used as restrictions in a quadratic goal-programming model when calculating the statistical weight for each individual account in the sample.

Both the units in the population as well as the structure of the weighting procedure have now been rebuilt to enable calculation of statistics by vessel units.

### 4.1.7 Data in the Account statistics for Fishery

In order to ensure an adequate data quality the institute does not rely on a simple questionnaire. The coherent structure of economic data makes it necessary to be able to validate all variables for an individual economic agent both in detail and consistently combined with other variables. The best way to do that is by setting up a balanced account. Therefore FOI has constructed a harmonized accounting form for fishery, which ensures that the data is broken down to meet the requirements of the Account Statistic for Fishery as well as the specifications in Regulation (EC) No 1639/2001. The accounting template, normally developed in spread sheet format, is included in the appendix 8 to this report as tables.

As a key factor to ensure data quality the accounts are made by professional accountants, who are paid for the work. The remuneration is EUR 385 per account. The accounting form set up by the institute has been build in an excel spreadsheet, which is used for reporting the data. The tables have the following number of entries:

46 entries for production $* 2$ (quantity and value per species)
10 entries for other income
47 entries for costs
8 entries for physical assets*5(value at the beginning of the year, changes due to market conditions, investments, depreciation, value at the end of the year)
2 entries for physical stocks
7 entries for financial assets*2(beginning of year, end of year)
13 entries for liabilities*2(beginning of year, end of year)
10 entries for capital regulation
20 entries for private income consumption and savings
10 entries for private assets and liabilities
Both quantity and cost data are collected for fuel and labour inputs. Furthermore vessel insurance value is included as a supplement to the book value (replacement value) of the vessel. Finally vessel activity is recorded as well as the owner's share of the vessel in case of shared ownership. The owner's share is used when allocating the rent of capital between the shareholders.

The reported accounts are entered into a database, where the data in each individual account is thoroughly tested for a vast number of properties and relevant comparisons. Any inconsistence disclosed by the test programme has to be addressed in collaboration with the reporting accountant and solved before the account is approved for statistical use.

The economic information collected and processed for account statistics forms together with the extract from the FD registers the basis for reporting data on the economic situation for the vessel groups.

### 4.1.8 Data for basic economic evaluation

## 1. Statistics based on register data:

- Vessel data. The physical data for the vessels are verified according to the FD register of fishing vessels, that is the Number in population, gross tonnage (GT), engine power (kW), and age of vessel.
- Effort. Vessel activity measured as days at sea according to the FD register of logbooks.
- Prices. Quarterly data on prices will be prepared using statistical files produced by FD based on the sales note register.

All register-based data are by definition exact. That is the precision level should be perfect. The only possible deviation should be if defective data were entered. The registers are continuously updated, as they are used for administrative purposes.

## 2. Sample statistics:

- Income / turnover: Value of production by species.
- Production costs: Labour costs, fuel, repair and maintenance, other operational costs.
- Fixed costs: Depreciation calculated individually by a fixed percentage for each type of fishery asset based on expected lifetime.
- Financial position: Own capital / borrowed capital.
- Invested capital: Replacement value of fishery assets at the beginning of the year. Insured values could also be included, but must be considered second best to the book value (replacement value).
- Employment: Calculated number of employed (part time / full time).

The precision level or the uncertainty on the results cannot be calculated by approximation to a distribution function, because it is not possible to carry out a random sampling. The element of voluntary participation has the result, that only a part of each stratum is available for selection. The most important task for improving the precision level is to increase the willingness among the fishermen to participate in the selection population. The institute will follow up on last year's achievement on increasing the number of fishermen to participate in the statistics, by selective enquiries to recruit fishermen in the strata where the participation needs improvement.

The institute will work on establishing an approximate measure for precision derived from ad hoc methods. At present the number of firms in the sample is about 315 and the remuneration to the fisherman's accountant is 385 EUR per reported account. It may be necessary to increase the number of accounts in order to meet the required precision for all fleet segments.

### 4.1.9 Supplementary data for improving the economic evaluation (extended programme)

Some of the entries in appendix XVIII of the Commission Regulation may call for specific pilot studies in order to access the possibilities to fulfil the requirements. For instance regional differentiation of costs by ICES subdivisions is not easily accomplished when many vessels have fishing trips in several subdivisions. The presence of several ICES subdivisions (IV, IIIaN, IIIaS, IIIb, IIIc, IIId) in the coastal area around Denmark makes it inappropriate to mix the segmentation of fleets with fishing areas. The fishing activities for a year are for most Danish fleet segments divided between several subdivisions depending on seasonality, fish abundance, fish prices, fishery management and restrictions plus the alternative choices the fisherman are faced with during the year.

The reasonable way to deal with geographical criteria, besides introducing licences limiting vessels to a single subdivision, is to make statistical calculations on the relative economic importance of the different subdivisions for each fleet segment based on the registered catch area for each individual landing of fish.

Another area where it may be necessary to carry out a more elaborate distinction is in the detailed disaggregating of vessels (appendix IV in the regulation), where calculations based on number of days performing a specific type of fishing technique may be implemented. The type of fishing technique is not fully identical with the vessel type based grouping in fleet segments, though there may be a high degree of correlation between fleet segment and use of gear type.

## 1. Statistics based on register data:

- Prices. Monthly data on prices prepared using statistical files produced by FD based on the sales note register.
- Production. Nominal catch in tonnes per species. Seasonal (monthly) data and by stock (ICES area) information could possible be prepared using the statistical files from FD.


## 2. Sample statistics:

- Production. Nominal catch in tonnes per species. Seasonal (monthly) data and by stock (ICES area) data is not considered to be comprehensive for the account forms. But the register-based statistics could complement the account statistics in this respect.
- Income/revenue/turnover. Subsidies separated from other income from fishery.
- Production costs. Further break down of operational costs into subgroups.
- Invested capital. Break down into type of fishery assets, for instance vessel (hull), engines and winches, electronic equipment, fishing gear, sheds/gear house, trucks or vans etc.
- Effort. The data for vessel activity are verified according to the FD register of logbooks. That is the number of days at sea and use of gear for each vessel.
- Employment: Separately calculated for the owner, partners, hired skippers and crew.


### 4.1.10 Completion of the aims in the programme for 2003

In the programme for 2003 we set out the objective to restructure the system for Account Statistics to fulfil the requirement in the appendix XVII and XVIII of Regulation (EC) No 1639/2001. These objectives has now been fulfilled:

1. Changing the account form by separating the private (family) economy from the fishery economy.
2. Changing the basis for the statistical unit in the procedure for collection of economic data from fisherman/fishing firm to a vessel unit approach.
3. Extend the categorisation variables to include further physical measures of the vessel.
4. Implement a new stratification model for sample selection and the procedure for calculation of individual weights for each account.

Re. 1. The accounting form has now been restructured in a way that the fishery economy is completely separated form the private/family economy. All test are made consistent to balance the economy for the fishing firm before linking to the family economy. Furthermore all information required in the minimum programme is specified in the FOI accounting forms for fishery.

Re. 2. In preparation of the population for the fishery account statistics all registered Danish fishermen or fishing firms with more than one fishing vessel are now individually assessed to determine whether the vessels owned by that fishing firm should be separate units. Bigger vessels (above 10 metres) are always set up as individual units. Fishermen, who fish alone in the small-scale fishery using a number of small boats for, which it does not make sense to set up accounts, are still treated as a single unit. But small vessels (less than 10 metres) that are operated independently with separate crews are now set up as separate units.

Though a fishing vessel not is an economic agent, it is usually conceived as so in fishery economics and fishery management. Therefore the institute has planned to implement the vessel-unit approach for the years 1996-2001 during 2003/2004, when a project aimed at harmonising the account statistics in order to build time series will be undertaken.

Re. 3. The transfer of variables from the vessel register in FD to the Fishery population file at the institute has been extended to include the necessary physical measures e.g. engine power, age of vessel.

Re. 4. The new model for stratification has now been implemented and has been used in the procedure for selecting the sample for the accounting year 2003.

## 5 Collection of data concerning the processing industry

### 5.1 Analysis of data collection strategies

In the first phase of the pilot study it was taking into consideration, what method should be used regarding the collection of data, so that the data collection program for the processing industry could comply with the demands that are listed in the Commission regulation (EC) No 1639/2001 of 25 July 2001 appendix XIX (Appendix 3).

The chosen method for collection of data for the processing industry was based on collaboration between the official statistical bureau Statistics Denmark and FOI as described in the "Danish National Program for collection of Fisheries Data 2002".

The background for using data collected by Statistics Denmark is, that FOI consider this solution to give the best and most qualified data and therefore the best foundation for the analysis of the processing industry. One of the advantages of a co-operation between Statistics Denmark and FOI is that it will give the best control of the collected data, as well as a good evaluation of the need for collection of complementary data, and this will in the end give the most qualified statistics for the processing industry. Another advantage of using the existing data is, that it will be possible to compare the branches in the fishery product processing industry with other branches, where data also is collected by Statistics Denmark. In addition to this it will probably be possible to get data for the fish processing industry (NACE 15.20.1030) distributed on geographical region level 3 (nomenclature of territorial units for statistical purposes, NUTS 3), which is part of the extended program. Statistics Denmark has many years of experience with collecting and managing of data, and will therefore be a valuable partner and secure high quality of data.

The selected method will furthermore secure, that the processing industry only will have to fill in one questionnaire and report to one authority. By choosing a method, that will not provide an extra workload for the processing industry, it will hopefully be easier to achieve a good working relationship with the processing industry, and thereby getting an even better evaluation of the data collected.

It would be difficult to start up a whole new collection of data for an account statistics for the processing industry. One of the things that would make it difficult is, that the test sample probably will have to involve all enterprises in the processing industry, because the population is small, and therefore even a large test sample will have a high level of uncertainty. Furthermore the collection of data carried out by FOI is based on voluntarily participation, and if the processing industry considers another questionnaire an extra workload, it will probably influence the collection of data negatively, against which reporting to Statistics Denmark is fixed by law, which will secure the best possible collection of data.

Taken into account the cost of collecting data, the method where FOI collaborates with Statistics Denmark is the most cost-efficient method, because Statistics Denmark already collects some of the data listed in appendix XIX (Appendix 3). A new collection of data headed by FOI would be very expensive and the cost would most likely exceed EUR 1 million, and the quality of the data would probably not be as good as the data collected by Statistics Denmark.

Based on FOI's experience with collecting and processing of data, and from a cost-benefit point of view, FOI have decided to enter into a co-operation with Statistics Denmark concerning the collection of data for the fish processing industry.

### 5.2 Data sources

On the basis of the conclusion from the analysis of data collection strategies, data from Statistics Denmark has been used as the foundation of the pilot study.

Data from Statistics Denmark's Industrial Commodity-, Account- and Raw Materiel Statistics has been used in the study. The purpose of the study was to analyse data from these statistics, to find out if they could provide the needed data to comply with the demands, that are listed in the Commission regulation (EC) No 1639/2001 of 25 July 2001 appendix XIX (Appendix 3).

Statistics Denmark is already collecting data for the Danish fishery-product processing industry on special Danish NACE groups.

The investigation have included data from NACE groups

- NACE 15.20.10 - Fish processing and preservation
- NACE 15.20.20 - Smoking, curing and salting of fish etc.
- NACE 15.20.30 - Fish meal factories

The data analysis has been concentrated on examining data from Statistics Denmark’s

- Industrial Commodity Statistics
- Account Statistics (cost and earnings statistics)
- Raw Materiel Statistics


### 5.3 Industrial Commodity Statistics

The statistics cover industrial enterprises with at least 10 fulltime-employees as well as sales from enterprises registered as non-industrial enterprises, but with workplaces within manufacturing with at least 10 fulltime-employees, are included in the statistics. The population is selected on the basis of the registered number of employees, approximately 2 years before the actual period of the survey. The reporting unit is the Kind of Activity Unit, which is the total sum of workplaces engaged in the same economic activity in one enterprise (industry).

The Industrial Commodity Statistics are based on a 10-digit Danish commodity code, which is based on the 8-digit CN commodity nomenclature (EC’s Combined Nomenclature) and the 6-digit HS commodity nomenclature (Appendix 4). The nomenclature consists of about 10,500 groups, of which the Danish production is classified to about 4,000 groups. If the nomenclatures are not changed, it is possible to compare the data over time. The commodity register is changed every year, which normally only affects 100-600 of the groups. Years with major changes in the register imply that the revision affects typically 2,000 groups (20\%). The latest major revision was in 1993.

In the examined data from the year 2000, there was only one enterprise with more than one Kind of Activity Unit (the enterprise had 2 Kind of Activity Units), and in 2001 there was none. In the light of this analysis we will use the enterprise as the reporting unit.

For the present the analysis of the "purity" of the processing industry suggest, that the "purity" is very high, which means that most, more than $90 \%$, of the commodities, which contain fish or fish products are produced in the branches defined by NACE 15.20.10-30.

The analysis of the Industrial Commodity Statistics for 2000 represent 78 enterprises with a total turnover of approximately EUR 1.2 billion, which covers 79 \% of the total turnover in the Account Statistics, which covers all enterprises in the Danish fish processing industry (NACE 15.20.10-30). The analysis of the Industrial Commodity Statistics for 2001 represent 77 enterprises with a total turnover of approximately EUR 1.4 billion, which covers 81 \% of the total turnover.

### 5.4 Data analysis of the Industrial Commodity Statistics

The Industrial Commodity Statistics provide the data for following parameters in endix XIX (Appendix 3).

## Income (turn-over)

- Total and per product.

Prices / Product

- Value and in tonne

The analysis of the Industrial Commodity Statistics shows, that it can provide the data to comply with the demands in appendix XIX (Appendix 4).

The data from the Industrial Commodity Statistics has been analysed to examine the possibility to define homogenous sub-branches from the existing NACE groups in the Danish fish processing industry (NACE 15.20.10-30). The purpose of creating these new sub-branches of enterprises is to provide the fishery economists with yearly time series data of the processing industry, that reflect the physical and economic data from the primary sector.

FOI has analyzed the composition of commodities from each enterprise in the processing industry for the years 2000, 2001 and 2002. This analysis has provided the background for dividing the enterprises in NACE group 15.20.10-30 into 13 new sub-branches on the basis of the enterprise's commodity production (Appendix 5). There is no basis for dividing the enterprises in NACE group 15.20.30, because it already is a homogenous branch. From this total of 13 sub-branches it will probably be possible to evaluate the supply of raw materiel going into the processing industry. The 13 subbranches also reflect the most important species in the Danish primary sector, and if there is a change in the supply of raw material, it will probably be reflected on these 13 sub-branches.

In the process of defining new sub-branches on the basis of the enterprise's commodity production, FOI has also suggested, that some of the enterprises in the existing branches (15.20.10-30) should be reallocated.

### 5.5 Account Statistics

The Account Statistics (cost and earnings statistics) covers all enterprises. The statistics are essentially aggregations of items of the annual accounts of business enterprises, notably items of the profit and loss account, the balance sheet and the statement of fixed assets. Thus, a wide range of subjects is covered, e.g. turnover, purchases, expenses, profits, assets, liabilities and investment. Results are published at both form of ownership, size group and region.

The Account Statistics for the year 2000 represent 140 enterprises, and had a total turnover of approximately EUR 1.5 billion. The Account Statistics for the year 2001 represent 139 enterprises, and had a total turnover of approximately EUR 1.7 billion.

### 5.6 Data analysis of the Account Statistics

The Account Statistics provide the data for following parameters in appendix XIX (Appendix 3).
Income (turn-over)
Production costs:

- Labour
- Energy
- Raw material (value)
- Other running costs

Fixed costs
Financial position
Investment (assets)
Employment
The analysis of the Account Statistics shows, that it can provide the data to comply with the demands in appendix XIX (Appendix 6).

The parameter under production costs named "Raw material (value)" includes both raw material as fish but also packaging and other commodities used in the production. There is a need for a more precise definition of the parameter "Raw material (value)".

We have calculated the parameter "Fixed cost", by subtracting sales of investment assets in the year from investment in the year. "Fixed cost" is thereby equal to investment in the year. There is a need for a more precise definition of the parameter "Fixed costs".

To improve data collection for the Account statistics, we have made some suggestions to Statistics Denmark.
The Account Statistics should be more closely coordinated with the Industrial Commodity Statistics, so they will become as one statistics.

In the Account Statistics all enterprises are included, but only the enterprises with more than 10 employees are for the time being placed into the 13 new sub-branches in the NACE groups 15.20 .10 and 15.20 .20 . The small enterprises are being analysed and placed in the 13 new sub-branches in cooperation with the organisations in the Danish fish processing industry.

### 5.7 Raw Material Statistics

The statistics cover industrial enterprises with at least 50 fulltime-employees. Enterprises with more than 20 but under 50 fulltime-employees are added to the population in industrial groups with only a few enterprises with at least 50 employees.

### 5.8 Data analysis of the Raw Material Statistics

The Raw Material Statistics provide the data for following parameters in appendix XIX (Appendix 3).

## Raw material

Production costs:

```
- Raw material (value)
```

- Packaging

The analysis of the Raw Material Statistics shows, that it can provide the data to comply with the demands in appendix XIX (Appendix 6).

Data from the Raw Material Statistics for the year 2001 is now ready. The data from the Raw Material Statistics have to be estimated to make it comparable with the data from the Account Statistics, because the Raw Material Statistics only covers firms with more than 50 full time employees whereas the Account Statistic cover all enterprises.

The Raw Material Statistics distributes data on commodity numbers for the parameter "Raw material (value)" taken from the Account Statistics. From the commodity numbers the parameter "Raw material (value)" will be distributed into the parameters "Raw material (value)" and "Packaging".

The Raw Material statistics covers industrial enterprises with at least 50 full time employees. The enterprises with at least 50 full time employees covers on average approximately $77 \%$ of the production in the Industrial Commodity Statistics (which covers enterprises down to at least 10 fulltime-employees) for the NACE group 15.20.10-20 in 2001. $77 \%$ is a high coverage of the NACE group 15.20.10-20, but if the group is split into 13 new sub-branches, some of these sub-branches will have a much lower coverage. To improve the coverage of the 13 new sub-branches, there could be a need for collection of complementary data for the Raw Material Statistics. If enterprises with more than 20 employees also are included in the sample, coverage on average will be as high as approximately $94 \%$ of the production in the Industrial Commodity Statistics for NACE group 15.20.10-20 in 2001.

### 5.9 Collecting and processing of existing data and complementary data

From the analysis of the existing data provided by Statistics Denmark, FOI can conclude, that data from Statistics Denmark will cover the needed data to comply with the demands listed in appendix XIX (Appendix 3).

FOI suggest though the following improvement in the data collection on the fish processing industry in Denmark.

1) The Industrial Commodity-, Account- and Raw Materiel Statistics should be harmonised, so that they will become as one statistics for the collection of data on the fish processing industry.
2) The enterprises in the fish processing industry NACE group 15.20 .10 and 15.20 .20 should be divided into 13 new sub-branches as shown in Appendix 5.
3) Enterprises with less than 10 employees in the Account Statistics in NACE group 15.20.10 and 15.20 .20 should be analysed and placed into the 13 new sub-branches.
4) There could be a need for collection of complementary data in the Raw Material Statistics, if the NACE group 15.20 .10 and 15.20 .20 is divided into 13 new sub-branches, because it only covers enterprises with more than 50 fulltime-employees, and the enterprises in some of the 13 new sub-branches is smaller than that.
5) There could be a need for collection of complementary data in the Raw Material Statistics on "Raw material (volume)". For the time being the volume of fish going into the fish processing industry is not available in the Raw material Statistics, only the value is available. From the value the volume can be calculated, but it would be more exact if the volume were being reported along with the value.

In the next step of the data analysis of the Danish fish processing industry we will collect and process data to create time series data, to secure that the data is comparable over time, and that the sub-branches is homogenous over time.

FOI will also analyse the possibilities for aggregating data on different kinds of geographical levels, so the overall sensitivity of the sector, including the social and economic impact on the processing industry located in different regions, can be evaluated.

FOI will continue to investigate and evaluate new data sources, to provide the best possible basis for the data described in appendix XIX (Appendix 3) for the Danish fish processing industry.

### 5.10 Capacity utilisation

Capacity utilisation is not estimated for the Danish processing industry at present. Our analysis of capacity utilisation shows that there will be no meaningful definition of this concept for the Danish fish processing industry to compare different branches, and that it will be even more difficult to compare this kind of concept with other countries.

We suggest, that this parameter will be left out of the data collection on the fish processing industry in the coming revision of the data collection program.

### 5.11 Regional data

It is for the time being, probably possible to divide the enterprises in the processing industry (NACE 15.20.10-30) on geographical region level 3 (nomenclature of territorial units for statistical purposes, NUTS 3), but it will probably not be possible for the 13 sub-branches, because the population is so small, that there can be problems referring to confidentiality of the data given by the industry. FOI will look into this problem, and analyse the possibilities for another slightly aggregated version of geographical subdivision, so the overall sensitivity of the sector, including the social and economic impact on the processing industry located in different regions, can be evaluated.

### 5.12 Data from The Directorate of Fisheries

The Directorate of Fisheries is collecting and managing data from the primary sector of the fishery in Denmark. The Directorate of Fisheries has three main registers of data.

## Register of the Danish fishing fleet

The directorate of Fisheries administers a register of the Danish fishing fleet, and it contains information on all Danish commercial fishing vessels about vessel tonnage, engine power, vessel length, vessel category, number of crew, insurance value, registration letters and vessel districts.

The register of the Danish fishing fleet are used as a basis for the Account Statistics for Fishery, which provide the data for chapter IV section J. Collection of economic data by groups of vessels.

## Sales note register

The Sales note register contains the information for all Danish and foreign landings from fishing vessels in Danish ports together with landings from Danish fishing vessels in foreign ports. The Sales note register also includes information about species, market categories (gutted, head on, head off, roe, liver, quality and size) in addition with fishing vessel identification, date and place of landing and name of purchaser.

It has been analysed if the Sales note register, which register all first hand sales of fish, could provide information about the raw materiel entering the processing industry.

In collaboration with The Directorate of Fisheries it has been analysed, whether the first hand purchaser could indicate whether the fish was delivered to merchants, wholesale brokers or directly to the processing industry.

The analysis of the Sales note register showed, that it couldn't provide the needed information about the raw materiel entering the industry. This is due to the fact, that only firsthand buy is registered in the Sales note register, and the fish is often bought and sold several times, before it goes into the processing industry. It will therefore not be possible to use the Sales note register for an estimation of the raw material going into the processing industry.

Logbook information

The logbook sheet is a form to be completed by the fisherman/master of the fishing vessel during the fishing trip and by arrival in port. It holds information about the vessel, the fishing operations, estimated catches and amounts of landed fish. A section of the logbook sheet forms a landing declaration, with specification of each fishery product landed.

### 5.13 Transport document

The transport document shall provide trace ability and control of the raw material going into the processing industry. The information required concerning the commercial designation, the production method and the catch area should be available at each stage of marketing of the species concerned. This information together with the scientific name of the species concerned shall be provided by means of the labelling or packaging of the product, or by means of a commercial document accompanying the goods, including the invoice, Commission regulation (EC) No 2065/2001 of 22. October 2001.

At present it is not possible to use the transport document for an analysis of the raw material going into the processing industry, because the document are registered only at the private enterprise and not in a central public register.

## 6 Coordination

### 6.1 International coordination

Some of the national data collection schedules are coordinated internationally by existing ICES groups. The biological sampling of landings is internationally coordinated by the ICES "Planning Group on Commercial Catch, Discards and Biological Sampling "(PGCCDBS). The coordination of the International Bottom Trawl survey (IBTS) and the Baltic International trawl Survey (BITS) is coordinated by the ICES working groups IBTSWG and WGBIFS respectively. DIFRES participate in all relevant coordination groups.

## 1 Appendixes

Appendix 1. Weight conversion factors (from gutted to fresh weight) of landed fish
Species
Galeorhinus galus

Lophius piscatorius
Lophius piscatorius
Reinhardtius hippoglosso
Reinhardtius hippoglosso
Merlangius merlangus
Merlangius merlangus
Limanda limanda
Limanda limanda
Merluccius merluccius
Merluccius merluccius
Molva molva
Molva molva
Pollachius virens
Pollachius virens
Scophthalmus maximus
Scophthalmus maximus
Squalus acanthias
Anarhichas minor
Anarhichas minor
Pleuronectes platessa
Pleuronectes platessa
Lamna nasus
Platichthys flesus
Platichthys flesus
Scophthalmus rhombus
Scophthalmus rhombus
Solea vulgaris
Solea vulgaris
Gadus morhua
Gadus morhua

Condition
Head on
Conversion factor

Head on
1.33

Head off
1.23

Head on
1.05

Head off
1.6

Head on
1.18

Head off
1.6

Head on
1.05

Head off
1.6

Head on
Head off
1.18

Head on
1.6

Head off
1.18

Head on
1.6

Head off
1.18

Head on
Head off
1.05

Head on
1.6

Head on
1.33
1.18

Head off1.6

Head on 1.05
Head off 1.6
Head on 1.33
Head on 1.05
Head off 1.6
Head on 1.05
Head off 1.6
Head on
1.05

Head off
1.6

Head on
Head off
1.18
1.6

Appendix 2 Summary reports of surveys.

## International Bottom Trawl Survey (IBTS)

The purpose is to estimate abundance of commercial and non-commercial fish species by means of bottom trawling and to collect otoliths of commercial species (cod, haddock, whiting, Norway pout, saithe, herring, sprat, and mackerel) to assess abundance by age, in particular for the recruiting year classes in the North Sea, the Skagerrak and the Kattegat.

As planed two surveys have been carried out during 2003:

## First quarter:

R/V DANA
Cruise period: 28/1-14/2 2003
Status: Carried out according to the contract "Danish National Program for collection of fisheries data" of $31^{\text {st }}$ of May 2002.
Achievements: 40 trawl hauls were conducted with the standard GOV-trawl. 40 CTD profiles were measured and 80 MIK samples were taken.

Map:


## Disseminations of data:

The International Bottom Trawl Survey Working Group (ICES)
Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (ICES). Working Group on the Assessment of Mackerel, Horse Mackerel, Sardine and Anchovy (ICES)
Herring Assessment Working Group for the Area South of $62^{\circ} \mathrm{N}$ (ICES)

Baltic International Fish Survey Working Group (ICES)
Data uploaded to DATRES database (ICES)

## Third quarter:

R/V DANA
Cruise period: 26/8-12/9 2003
Status: Carried out in agreement to the contract "Danish National Program for collection of fisheries data" of $31^{\text {st }}$ of May 2002.
Achievements: 48 trawl hauls were conducted with the standard GOV-trawl. 48 CTD profiles were measured.
Map:


Disseminations of data:
The International Bottom Trawl Survey Working Group (ICES)
Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (ICES). Working Group on the Assessment of Mackerel, Horse Mackerel, Sardine and Anchovy (ICES)
Herring Assessment Working Group for the Area South of $62^{\circ} \mathrm{N}$ (ICES)
Baltic International Fish Survey Working Group (ICES)
Data uploaded to DATRES database (ICES)

### 1.1.1 Baltic International Trawl Survey (BITS)

The primary purpose of the part undertaken by R/V DANA is to develop indices for recruitment and stock abundance of the Baltic cod stocks. The second part undertaken by R/V HAVFISKEN provides in addition to cod also abundance indices for flatfish.

The survey was carried out twice during 2003 and in both quarters both the research vessel R/V DANA and the smaller research vessel R/V HAVFISKEN did participate

As planed four surveys have been carried out during 2003:

## First quarter:

## R/V DANA

Cruise period: 4/3-21/3 2003
Status: Carried out according to the contract "Danish National Program for collection of fisheries data" of $31^{\text {st }}$ of May 2002.
Achievements: 54 trawl stations with the standard TV3 trawl were taken and 49 CTD profiles were measured.
Map:


Disseminations of data:
Baltic Fisheries Assessment Working Group (ICES)
Baltic International Fish Survey Working Group (ICES)
Data uploaded to DATRES database (ICES)

Status: Carried out according to the contract "Danish National Program for collection of fisheries data" of $31^{\text {st }}$ of May 2002.
Achievements: 41 trawl hauls with the standard small TV3 trawl. CTD profiles were measured at all trawl stations.


Disseminations of data:
Baltic Fisheries Assessment Working Group (ICES)
Baltic International Fish Survey Working Group (ICES)
Data uploaded to DATRES database (ICES)

## Forth quarter:

## R/V DANA

Cruise period: 4/11-25/11 2003
Status: Carried out according to the contract "Danish National Program for collection of fisheries data" of $31^{\text {st }}$ of May 2002, with modifications due to an accident for a crew member.
Achievements: 25 of 50 planed trawl stations. In the beginning of the second half of cruise, a crew member had an bad accident in connection with hauling the net, and had to be evacuated by helicopter. After the accident the ship returned to Copenhagen were the part of the crew that have been involved in the rescue operation were offered emergency counselling. The Crew member that had the accident had suffered damage to the vertebra, but are now fully recovered. The cruise was not resumed due to technical problems with the steering gear.

Map:


Disseminations of data:
Baltic Fisheries Assessment Working Group (ICES)
Baltic International Fish Survey Working Group (ICES)
Data uploaded to DATRES database (ICES)

R/V Havfisken.
Cruise period: 21/10-7/11 2002
Status: Carried out according to the contract "Danish National Program for collection of fisheries data" of $31^{\text {st }}$ of May 2002..
Achievements: 42 trawl hauls were conducted with the standard small TV3 trawl. CTD profiles were measured at all trawl stations.

Map


Disseminations of data:
Baltic Fisheries Assessment Working Group (ICES)
Baltic International Fish Survey Working Group (ICES)
Data uploaded to DATRES database (ICES)

### 1.1.2 HERSUR (International acoustic herring survey)

The purpose is to provide acoustic abundance estimates of herring and sprat in the North Sea (eastern part), the Skagerrak, and the Kattegat.

Cruise period: 27/6-11/7 2003
Status: Carried out according to the contract "Danish National Program for collection of fisheries data" of $31^{\text {st }}$ of May 2002.

Achievements:
Map:


Disseminations of data:
Herring Assessment Working Group for the Area South of $62^{\circ} \mathrm{N}$ Data uploaded to BAD I and BAD II databases (ICES)

## Extended Programme:

No data collection has been carried out within the framework of the extended programme.

## Appendix 3

Commission regulation (EC) No 1639/2001 of 25 July 2001.
Appendix XIX (Section K)

| General description | Minimum programme <br> 1. Priority (annual) |
| :--- | :--- |
| Raw material | Total and per species (tonne) |
| Income (turn-over) | Total and per product |
| Production costs: <br> - Labour <br> - Energy <br> - Raw material (value) <br> - Packaging <br> - Other running costs | Total and per category cost |
| Fixed costs |  |
| Financial position | Average costs, calculated from investment |
| Investment (asset) | Share of own / borrowed capital |
| - Historical |  |
| - Replacement |  |
| Employment | - Insurance |
| Capacity utilisation | Value, tonne |

Appendix 5.

Description of sub-branches in the fish processing industry

| Sub-branches (NACE) | General description |
| :---: | :---: |
| 15.20.10 | "Fish processing and preservation". <br> Total for the sub-branches 15.20.11-15.20.19 |
| 15.20.11 | 1 Primary industry <br> "Cod, flatfish etc.", provides more than $50 \%$ of the enterprises turnover. |
| 15.20.12 | 2 Mixed industry <br> "Cod, flatfish etc.", provides more than $50 \%$ of the enterprises turnover. |
| 15.20.13 | 3 Prepared or preserved product industry <br> "Mackerel", provides more than $50 \%$ of the enterprises turnover. |
| 15.20.14 | 4 Primary industry "Herring", provides more than $50 \%$ of the enterprises turnover. |
| 15.20.15 | 5 Secondary industry <br> "Herring", provides more than $50 \%$ of the enterprises turnover. |
| 15.20.16 | 6 Prepared or preserved product industry "Herring", provides more than $50 \%$ of the enterprises turnover. |
| 15.20.17 | 7 Prepared or preserved product industry "Molluscs", provides more than $50 \%$ of the enterprises turnover. |
| 15.20.18 | 8 Prepared or preserved product industry <br> "Shrimps and crustaceans", provides more than $50 \%$ of the enterprises turnover. |
| 15.20.19 | 9 Mixed species and product production industry "Mixed species production", provides more than $50 \%$ of the enterprises turnover. |
|  |  |
| 15.20.20 | "Smoking curing and salting of fish etc.". Total for the sub-branches 15.20.21-15.20.24 |
| 15.20.21 | 10 Primary industry <br> "Salmonoids", provides more than $50 \%$ of the enterprises turnover. |
| 15.20.22 | 10 Secondary industry <br> "Salmonoids", provides more than $50 \%$ of the enterprises turnover. |
| 15.20.23 | 14 Mixed industry <br> "Salmonoids", provides more than $50 \%$ of the enterprises turnover. |
| 15.20.24 | 12 Smokehouses <br> "Salmonoids", Herring, Mackerel and Eel. |
|  |  |
| 15.20.30 | "Fish meal factories" |

Appendix 4. Industrial Commodity Statistics 2001 in EUR.

1 EUR= 7,46 DKK



| 3041019 | 1.000 EUR |  |  |  |  | 6 |  |  | 6 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tonne |  |  |  |  | 1 |  |  | 1 | 7.16 |
| 3041031 | 1.000 EUR | 24524 | 4014 | 4263 |  | 3461 |  |  | 36262 |  |
|  | Tonne | 4083 | 697 | 836 |  | 535 |  |  | 6151 | 5.90 |
| 3041033 | 1.000 EUR | 2051 | 185 |  |  | 469 |  |  | 2705 |  |
|  | Tonne | 725 | 102 |  |  | 165 |  |  | 992 | 2.73 |
| 3041038 | 1.000 EUR | 18201 | 1597 | 588 | 551 | 3688 |  |  | 24626 |  |
|  | Tonne | 9434 | 200 | 392 | 357 | 497 |  |  | 10879 | 2.26 |
| 3041091 | 1.000 EUR |  |  |  |  |  |  | 39 | 39 |  |
|  | Tonne |  |  |  |  |  |  | 25 | 25 | 1.55 |
| 3041097 | 1.000 EUR | 123 |  | 5802 | 1757 |  |  |  | 7682 |  |
|  | Tonne | 62 |  | 4890 | 1340 |  |  |  | 6292 | 1.22 |
| 3041098 | 1.000 EUR | 932 |  |  |  | 1 |  |  | 932 |  |
|  | Tonne | 679 |  |  |  | 0 |  |  | 680 | 1.37 |
| 3042011 | 1.000 EUR |  |  |  |  | 41 |  | 4 | 45 |  |
|  | Tonne |  |  |  |  | 13 |  | 1 | 14 | 3.27 |
| 3042013 | 1.000 EUR |  |  |  |  | 16490 |  |  | 16490 |  |
|  | Tonne |  |  |  |  | 2136 |  |  | 2136 | 7.72 |
| 3042029 | 1.000 EUR | 43745 | 37256 | 675 |  | 2590 |  |  | 84267 |  |
|  | Tonne | 8274 | 12982 | 157 |  | 439 |  |  | 21852 | 3.86 |
| 3042031 | 1.000 EUR | 1930 |  |  |  | 112 |  |  | 2042 |  |
|  | Tonne | 778 |  |  |  | 41 |  |  | 819 | 2.49 |
| 3042033 | 1.000 EUR | 608 | 2833 |  |  |  |  |  | 3440 |  |
|  | Tonne | 93 | 551 |  |  |  |  |  | 644 | 5.34 |
| 3042035 | 1.000 EUR | 1 |  |  |  |  |  |  | 1 |  |
|  | Tonne | 0 |  |  |  |  |  |  | 0 | 6.70 |
| 3042041 | 1.000 EUR | 4 |  |  |  |  |  |  | 4 |  |
|  | Tonne | 2 |  |  |  |  |  |  | 2 | 1.68 |
| 3042045 | 1.000 EUR | 8 |  |  |  |  | 0 |  | 8 |  |
|  | Tonne | 3 |  |  |  |  | 0 |  | 3 | 2.36 |
| 3042055 | 1.000 EUR |  |  |  |  | 12 |  |  | 12 |  |
|  | Tonne |  |  |  |  | 3 |  |  | 3 | 4.79 |
| 3042058 | 1.000 EUR |  | 41 |  |  |  |  |  | 41 |  |
|  | Tonne |  | 9 |  |  |  |  |  | 9 | 4.62 |
| 3042071 | 1.000 EUR | 2061 | 7566 |  |  | 2336 |  |  | 11963 |  |
|  | Tonne | 308 | 1231 |  |  | 356 |  |  | 1894 | 6.32 |
| 3042073 | 1.000 EUR | 26 |  |  |  | 152 |  |  | 178 |  |
|  | Tonne | 5 |  |  |  | 26 |  |  | 30 | 5.89 |
| 3042075 | 1.000 EUR |  | 194 | 475 | 557 | 63 |  |  | 1289 |  |
|  | Tonne |  | 62 | 277 | 320 | 12 |  |  | 671 | 1.92 |
| 3042085 | 1.000 EUR | 1813 |  |  |  |  |  |  | 1813 |  |
|  | Tonne | 543 |  |  |  |  |  |  | 543 | 3.34 |
| 3042087 | 1.000 EUR |  |  |  |  |  | 53 |  | 53 |  |
|  | Tonne |  |  |  |  |  | 5 |  | 5 | 11.46 |
| 3042095 | 1.000 EUR | 126 | 5033 |  |  | 720 | 0 |  | 5878 |  |


|  | Tonne | 14 | 739 |  |  |  | 100 | 0 |  | 853 | 6.89 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3049005 | 1.000 EUR |  |  |  |  | 253 |  |  |  | 253 |  |
|  | Tonne |  |  |  |  | 71 |  |  |  | 71 | 3.58 |
| 3049010 | 1.000 EUR |  |  |  |  | 6 |  |  |  | 6 |  |
|  | Tonne |  |  |  |  |  | 5 |  |  | 5 | 1.22 |
| 3049022 | 1.000 EUR |  |  | 158 | 237 |  |  |  |  | 395 |  |
|  | Tonne |  |  | 99 | 157 |  |  |  |  | 256 | 1.54 |
| 3049035 | 1.000 EUR | 218 |  |  |  |  |  |  |  | 218 |  |
|  | Tonne | 133 |  |  |  |  |  |  |  | 133 | 1.63 |
| 3049038 | 1.000 EUR | 604 | 277 |  |  |  | 48 |  |  | 929 |  |
|  | Tonne | 448 | 2983 |  |  |  | 19 |  |  | 3451 | 0.27 |
| 3049039 | 1.000 EUR |  |  |  |  | 135 |  |  |  | 135 |  |
|  | Tonne |  |  |  |  | 39 |  |  |  | 39 | 3.50 |
| 3049041 | 1.000 EUR | 457 |  |  |  |  |  |  |  | 457 |  |
|  | Tonne | 359 |  |  |  |  |  |  |  | 359 | 1.27 |
| 3049097 | 1.000 EUR |  |  |  |  |  | 65 |  |  | 65 |  |
|  | Tonne |  |  |  |  |  | 10 |  |  | 10 | 6.40 |
| 3052000 | 1.000 EUR | 1055 |  |  |  |  |  | 157 | 9588 | 10800 |  |
|  | Tonne |  |  | 510 |  |  |  | 14 | 435 | 959 | 11.26 |
| 3053019 | 1.000 EUR |  |  |  |  | 2 |  |  |  | 2 |  |
|  | Tonne |  |  |  |  |  |  | 0 |  | 0 | 11.88 |
| 3053030 | 1.000 EUR |  |  |  |  |  |  | 6805 |  | 6805 |  |
|  | Tonne |  |  |  |  |  |  | 1051 |  | 1051 | 6.47 |
| 3053050 | 1.000 EUR |  |  |  |  | 3 |  |  |  | 3 |  |
|  | Tonne |  |  |  |  | 0 |  |  |  | 0 | 9.93 |
| 3053090 | 1.000 EUR |  |  |  | 125 |  |  |  |  | 125 |  |
|  | Tonne |  |  |  | 17 |  |  |  |  | 17546 |  |
| 3054100 | 1.000 EUR |  |  |  |  | 2 | 22068 | 91055 | 62337 | 2 |  |
|  | Tonne |  |  |  |  | 0 | 2135 | 8025 | 6223 | 16383 | 10.71 |
| 3054200 | 1.000 EUR | 311 |  |  |  | 353 |  |  |  | 663 |  |
|  | Tonne | 27 |  |  |  | 40 |  |  |  | 68 | 9.82 |
| 3054910 | 1.000 EUR |  |  |  |  |  | 49 | 1204 | 1546 | 2799 |  |
|  | Tonne |  |  |  |  |  | 4 | 87 | 126 | 216 | 12.93 |
| 3054930 | 1.000 EUR | 1921 |  |  |  |  |  | 767 | 51 | 2739 |  |
|  | Tonne | 31 |  |  |  |  |  | 86 | 2 | 401 | 6.82 |
| 3054945 | 1.000 EUR |  |  |  |  |  | 7871 | 35447 | 561 | 43879 |  |
|  | Tonne |  |  |  |  |  | 890 | 3801 | 52 | 4742 | 9.25 |
| 3054950 | 1.000 EUR |  |  |  |  | 500 |  |  |  | 500 |  |
|  | Tonne |  |  |  |  | 25 |  |  |  | 25 | 19.64 |
| 3054980 | 1.000 EUR |  |  |  |  |  | 165 | 2332 | 1260 | 3757 |  |
|  | Tonne |  |  |  |  |  | 16 | 457 | 92 | 565 | 6.65 |
| 3056100 | 1.000 EUR |  |  |  | 6020 |  |  |  |  | 6020 |  |
|  | Tonne |  |  |  | 3605 |  |  |  |  | 3605 | 1.67 |
| 3056200 | 1.000 EUR | 111 |  |  |  |  |  |  |  | 111 |  |




| 16052091 | Tonne |  | 172 | 109 |  |  |  |  | 3551 | 251 | 10 |  |  | 4092 | 7.49 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1.000 EUR |  |  | 4961 |  |  |  |  | 29140 | 47806 |  |  |  | 81906 |  |
|  | Tonne |  |  | 461 |  |  |  |  | 3520 | 4625 |  |  |  | 8605 | 9.52 |
| 16052099 | 1.000 EUR |  |  | 142 |  |  |  |  | 4315 | 4271 |  |  |  | 8728 |  |
|  | Tonne |  |  | 18 |  |  |  |  | 540 | 542 |  |  |  | 1100 | 7.94 |
| 16053090 | 1.000 EUR |  |  | 31 |  |  |  |  | 68 |  |  |  |  | 99 |  |
|  | Tonne |  |  | 5 |  |  |  |  | 5 |  |  |  |  | 9 | 10.63 |
| 16054000 | 1.000 EUR |  |  | 482 |  |  |  |  | 829 | 2965 |  |  |  | 4276 |  |
|  | Tonne |  |  | 52 |  |  |  |  | 78 | 326 |  |  |  | 456 | 9.37 |
| 16059011 | 1.000 EUR |  |  |  |  |  | 381 | 16950 | 5 | 1000 |  |  |  | 18336 |  |
|  | Tonne |  |  |  |  |  | 77 | 7526 | 1 | 417 |  |  |  | 8021 | 2.29 |
| 16059019 | 1.000 EUR |  |  |  |  |  |  | 16977 | 9 |  |  |  |  | 16987 |  |
|  | Tonne |  |  |  |  |  |  | 6749 | 2 |  |  |  |  | 6751 | 2.52 |
| 16059030 | 1.000 EUR |  |  |  |  |  |  |  | 119 |  |  |  |  | 119 |  |
|  | Tonne |  |  |  |  |  |  |  | 17 |  |  |  |  | 17 | 7.03 |
| 16059090 | 1.000 EUR |  |  | 93 |  |  |  |  |  |  |  |  |  | 93 |  |
|  | Tonne |  |  | 16 |  |  |  |  |  |  |  |  |  | 16 | 5.94 |
| 20019010 | 1.000 EUR |  |  |  |  |  |  |  |  | 446 |  |  |  | 446 |  |
|  | Tonne |  |  |  |  |  |  |  |  | 269 |  |  |  | 269 | 1.66 |
| 20049098 | 1.000 EUR |  | 243 |  |  |  |  |  |  |  |  |  |  | 243 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \#DIV/0 |
|  | Tonne |  | 0 |  |  |  |  |  |  |  |  |  |  | 0 | ! |
| 20059080 | 1.000 EUR |  |  |  |  |  |  |  |  |  | 2 |  |  | 2 |  |
|  | Tonne |  |  |  |  |  |  |  |  |  | 2 |  |  | 2 | 1.24 |
| 21039090 | 1.000 EUR | 73 |  |  |  |  | 38 |  |  | 40 | 4 | 13 |  | 169 |  |
|  | Tonne | 3 |  |  |  |  | 20 |  |  | 10 | 2 | 8 |  | 43 | 3.91 |
| 21041090 | 1.000 EUR |  |  |  |  |  | 1511 |  |  | 9 |  |  |  | 1520 |  |
|  | Tonne |  |  |  |  |  | 874 |  |  | 2 |  |  |  | 876 | 1.74 |
| 21069098 | 1.000 EUR |  |  | 121 |  |  |  |  |  |  |  |  |  | 121 |  |
|  | Tonne |  |  | 23 |  |  |  |  |  |  |  |  |  | 23 | 5.28 |
| 22019000 | 1.000 EUR | 213 | 92 |  |  |  |  |  |  |  |  |  |  | 305 |  |
|  | Tonne | 7335 | 3218 |  |  |  |  |  |  |  |  |  |  | 10553 | 0.03 |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 25083 | 25083 |  |
| 23012000 | 1.000 EUR |  |  |  |  |  |  |  |  |  |  |  | 6 | 6 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 40769 | 40769 |  |
|  | Tonne |  |  |  |  |  |  |  |  |  |  |  | 0 | 0 | 0.62 |
| 23099097 | 1.000 EUR |  |  |  |  |  |  |  |  |  |  |  | 2188 | 2188 |  |
|  | Tonne |  |  |  |  |  |  |  |  |  |  |  | 11315 | 11315 | 0.19 |
| 39209990 | 1.000 EUR |  |  |  |  |  |  |  |  |  | 15 |  |  | 15 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \#DIV/0 |
|  | Tonne |  |  |  |  |  |  |  |  |  | 0 |  |  | 0 | ! |
| 48192010 | 1.000 EUR |  |  |  |  |  |  |  |  |  | 2 |  |  | 2 |  |
|  | Tonne |  |  |  |  |  |  |  |  |  | 1 |  |  | 1 | 1.88 |
| 48192090 | 1.000 EUR |  |  |  |  |  |  |  |  |  | 2 |  |  | 2 |  |
|  | Tonne |  |  |  |  |  |  |  |  |  | 1 |  |  | 1 | 3.37 |
| Total Sum af 1.000EURO |  | 12002 | 15591 |  |  |  |  |  |  | 17783 | 14356 | 14279 | 30472 | 13842 |  |
|  | 1.000 EUR | 1 | 2 | 70070 | 46377 | 71932 | 30714 | 42209 | 78116 | 9 | 4 | 6 | 6 | 78 |  |
| Page 45 of 81 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

03011010 LIVE ORNAMENTAL FRESHWATER FISH

03011090 LIVE ORNAMENTAL SALTWATER FISH
03019110 LIVE TROUT 'ONCORHYNCHUS APACHE AND ONCORHYNCHUS CHRYSOGASTER'
03019190 LIVE TROUT 'SALMO TRUTTA, ONCORHYNCHUS MYKISS, ONCORHYNCHUS CLARKI, ONCORHYNCHUS AGUABONITA, ONCORHYNCHUS GILAE'
03019200 LIVE EELS 'ANGUILLA SPP.'
03019300 LIVE CARP
03019911 LIVE PACIFIC SALMON 'ONCORHYNCHUS SPP.', ATLANTIC SALMON 'SALMO SALAR' AND DANUBE SALMON 'HUCHO HUCHO'
03019919 LIVE FRESHWATER FISH (EXCL. ORNAMENTAL FISH, TROUT, EELS, CARP, PACIFIC SALMON, ATLANTIC SALMON AND DANUBE SALMON)
03019990 LIVE SALTWATER FISH (EXCL. ORNAMENTAL)
03021110 FRESH OR CHILLED TROUT 'ONCORHYNCHUS APACHE AND ONCORHYNCHUS CHRYSOGASTER'
03021190 FRESH OR CHILLED TROUT 'SALMO TRUTTA, ONCORHYNCHUS MYKISS, ONCORHYNCHUS CLARKI,
ONCORHYNCHUS AGUABONITA, ONCORHYNCHUS GILAE'
03021200 FRESH OR CHILLED PACIFIC SALMON 'ONCORHYNCHUS SPP.', ATLANTIC SALMON 'SALMO SALAR' AND DANUBE SALMON 'HUCHO HUCHO'
03021900 FRESH OR CHILLED SALMONIDAE (EXCL. TROUT, PACIFIC SALMON, ATLANTIC SALMON AND DANUBE SALMON)
03022110 FRESH OR CHILLED LESSER OR GREENLAND HALIBUT
03022130 FRESH OR CHILLED ATLANTIC HALIBUT
03022190 FRESH OR CHILLED PACIFIC HALIBUT
03022200 FRESH OR CHILLED PLAICE
03022300 FRESH OR CHILLED SOLE 'SOLEA SPP.'
03022910 FRESH OR CHILLED MEGRIM
03022990 FRESH OR CHILLED FLAT FISH (EXCL. 0302.21-10 TO 0302.29-10)
03023110 FRESH OR CHILLED ALBACORE OR LONGFINNED TUNAS FOR INDUSTRIAL PROCESSING OR PRESERVATION 03023190 FRESH OR CHILLED ALBACORE OR LONGFINNED TUNAS (EXCL. FOR INDUSTRIAL PROCESSING OR PRESERVATION)
03023210 FRESH OR CHILLED YELLOWFIN TUNAS FOR INDUSTRIAL PROCESSING OR PRESERVATION
03023290 FRESH OR CHILLED YELLOWFIN TUNAS (EXCL. FOR INDUSTRIAL PROCESSING OR PRESERVATION)
03023310 FRESH OR CHILLED SKIPJACK OR STRIPE-BELLIED BONITO FOR INDUSTRIAL PROCESSING OR PRESERVATION
03023390 FRESH OR CHILLED SKIPJACK OR STRIPE-BELLIED BONITO (EXCL. FOR INDUSTRIAL PROCESSING OR
PRESERVATION)
03023919 BLUEFIN TUNAS 'THUNNUS THYNNUS', FRESH OR CHILLED, FOR INDUSTRIAL PROCESSING OR PRESERVATION
03023919 TUNAS (OF THE GENUS THUNNUS), FRESH OR CHILLED, FOR INDUSTRIAL PROCESSING OR PRESERVATION (EXCL. WHITE, YELLOWFIN AND BLUEFIN)

BLUEFIN TUNAS 'THUNNUS THYNNUS', FRESH OR CHILLED (EXCL. TUNAS FOR INDUSTRIAL PROCESSING OR PRESERVATION)
TUNAS (OF THE GENUS THUNNUS), FRESH OR CHILLED (EXCL. TUNAS FOR INDUSTRIAL PROCESSING OR PRESERVATION
AND WHITE, YELLOWFIN AND BLUEFIN
FRESH OR CHILLED HERRINGS 'CLUPEA HARENGUS, CLUPEA PALLASII', FROM 1 JANUARY TO 14 FEBRUARY FRESH OR CHILLED HERRINGS 'CLUPEA HARENGUS, CLUPEA PALLASII', FROM 15 FEBRUARY TO 15 JUNE FRESH OR CHILLED HERRINGS 'CLUPEA HARENGUS, CLUPEA PALLASII', FROM 16 JUNE TO 31 DECEMBER FRESH OR CHILLED COD 'GADUS MORHUA'
FRESH OR CHILLED COD 'GADUS OGAC, GADUS MACROCEPHALUS'
FRESH OR CHILLED SARDINES 'SARDINA PILCHARDUS'
FRESH OR CHILLED SARDINES 'SARDINOPS SPP.' AND SARDINELLA
FRESH OR CHILLED BRISLING OR SPRATS 'SPRATTUS SPRATTUS', FROM 1 JANUARY TO 14 FEBRUARY FRESH OR CHILLED BRISLING OR SPRATS, FROM 15 FEBRUARY TO 15 JUNE
FRESH OR CHILLED BRISLING OR SPRATS, 'SPRATTUS SPRATTUS', FROM 16 JUNE TO 31 DECEMBER FRESH OR CHILLED HADDOCK
FRESH OR CHILLED COALFISH
FRESH OR CHILLED MACKEREL 'SCOMBER SCOMBRUS, SCOMBER AUSTRALASICUS, SCOMBER JAPONICUS', FROM 1 JANUARY TO 14 FEBRUARY
FRESH OR CHILLED MACKEREL 'SCOMBER SCOMBRUS, SCOMBER AUSTRALASICUS, SCOMBER JAPONICUS', FROM 15 FEBRUARY TO 15 JUNE
FRESH OR CHILLED MACKEREL 'SCOMBER SCOMBRUS, SCOMBER AUSTRALASICUS, SCOMBER JAPONICUS', FROM 16 JUNE TO 31 DECEMBER
FRESH OR CHILLED DOGFISH OF THE SPECIES 'SQUALUS ACANTHIAS'
FRESH OR CHILLED DOGFISH OF THE SPECIES 'SCYLIORHINUS SPP.'
FRESH OR CHILLED SHARKS (EXCL. DOGFISH OF THE SPECIES 'SQUALUS ACANTHIAS' AND 'SCYLIORHINUS SPP.') FRESH OR CHILLED EELS 'ANGUILLA SPP.'
FRESH OR CHILLED CARP
FRESH OR CHILLED FRESHWATER FISH (EXCL. SALMONIDAE, EELS AND CARP)
FRESH OR CHILLED SALTWATER FISH OF THE GENUS EUTHYNNUS FOR INDUSTRIAL PROCESSING OR PRESERVATION
(EXCL. SKIPJACK OR STRIPE-BELLIED BONITOS)
FRESH OR CHILLED SALTWATER FISH OF THE GENUS EUTHYNNUS (EXCL. FOR INDUSTRIAL PROCESSING OR PRESERVATION AND SKIPJACK OR STRIPE-BELLIED BONITOS)
FRESH OR CHILLED REDFISH 'SEBASTES MARINUS'
FRESH OR CHILLED REDFISH 'SEBASTES SPP.' (EXCL. SEBASTES MARINUS)
FRESH OR CHILLED SALTWATER FISH OF THE SPECIES BOREOGADUS SAIDA
FRESH OR CHILLED WHITING 'MERLANGUS MERLANGUS'
FRESH OR CHILLED LING
FRESH OR CHILLED ALASKA POLLACK 'THERAGRA CHALCOGRAMMA' AND POLLACK FRESH OR CHILLED ANCHOVIES 'ENGRAULIS SPP.'

03026961
03026966

03026967 03026968

03026969
03026975
03026981 03026985 03026986 03026987 03026991 03026992 03026993 03026994 03026995 03026999 03027000 03031000 03032110 03032190

03032200 03032900 03033110 03033130 03033190 03033200 03033300 03033910 03033920 03033930 03033980

03034111
03034113

FRESH OR CHILLED SEA BREAM 'DENTEX DENTEX AND PAGELLUS SPP.'
FRESH OR CHILLED CAPE HAKE 'SHALLOW-WATER HAKE' 'MERLUCCIUS CAPENSIS' AND DEEPWATER HAKE 'DEEPWATER
CAPE HAKE' 'MERLUCCIUS PARADOXUS'
FRESH OR CHILLED HAKE OF THE GENUS 'MERLUCCIUS' (EXCL. CAPE HAKE 'SHALLOW-WATER HAKE', DEEPWATER HAKE
'DEEPWATER CAPE HAKE' AND SOUTHERN HAKE)
FRESH OR CHILLED HAKE OF THE GENUS 'UROPHYCIS'
FRESH OR CHILLED RAY'S BREAM 'BRAMA SPP.'
FRESH OR CHILLED MONKFISH
FRESH OR CHILLED BLUE WHITING
FRESH OR CHILLED SOUTHERN BLUE WHITING 'MICROMESISTIUS AUSTRALIS'
FRESH OR CHILLED SWORDFISH 'XIPHIAS GLADIUS'
HORSE MACKEREL IN 'SCAD' 'CARANX TRACHURUS, TRACHURUS TRACHURUS', FRESH OR CHILLED
FRESH OR CHILLED PINK CUSK-EEL 'GENYPTERUS BLACODES'
FISH OF THE SPECIES KATHETOSTOMA GIGANTEUM, FRESH OR CHILLED
FRESH OR CHILLED SEA BASS 'DICENTRARCHUS LABRAX'
FRESH OR CHILLED GILT-HEAD SEABREAMS 'SPARUS AURATA'
FRESH OR CHILLED EDIBLE SALTWATER FISH, N.E.S.
FRESH OR CHILLED FISH LIVERS AND ROES
FROZEN PACIFIC SALMON 'ONCORHYNCHUS SPP.'
FROZEN TROUT 'ONCORHYNCHUS APACHE AND ONCORHYNCHUS CHRYSOGASTER'
FROZEN TROUT 'SALMO TRUTTA, ONCORHYNCHUS MYKISS, ONCORHYNCHUS CLARKI, ONCORHYNCHUS AGUABONITA
AND ONCORHYNCHUS GILAE'
FROZEN ATLANTIC SALMON 'SALMO SALAR' AND DANUBE SALMON 'HUCHO HUCHO'
FROZEN SALMONIDAE (EXCL. PACIFIC SALMON, ATLANTIC SALMON, DANUBE SALMON AND TROUT)
FROZEN LESSER OR GREENLAND HALIBUT
FROZEN ATLANTIC HALIBUT
FROZEN PACIFIC HALIBUT
FROZEN PLAICE
FROZEN SOLE 'SOLEA SPP.'
FROZEN FLOUNDER
FROZEN MEGRIM
FROZEN FISH OF THE GENUS RHOMBOSOLEA
FROZEN FLAT FISH 'PLEURONECTIDAE, BOTHIDAE, CYNOGLOSSIDAE, SOLEIDAE, SCOPHTHALMIDAE AND CITHARIDAE
(EXCL. HALIBUT, PLAICE, SOLE, FLOUNDER, MEGRIM AND RHOMBOSOLEA SPP.)
FROZEN WHOLE ALBACORE OR LONGFINNED TUNAS FOR INDUSTRIAL PROCESSING OR PRESERVATION FROZEN GILLED AND GUTTED ALBACORE OR LONGFINNED TUNAS FOR INDUSTRIAL PROCESSING OR
GILLS, BUT STILL TO BE GUTTED

03034190
03034212

03034218

03034232
03034238

03034252

03034258
03034290
03034311
03034313

03034319
03034390
03034921 03034923

03034929

03034941

03034943

03034949
03034990

03035005
03035010
03035098
03036011
03036019

FROZEN ALBACORE OR LONGFINNED TUNAS (EXCL. FOR INDUSTRIAL PROCESSING OR PRESERVATION) FROZEN YELLOWFIN TUNAS FOR INDUSTRIAL MANUFACTURE OF PRODUCTS OF 16.04, WHOLE, WEIGHING > 10 KG EACH
FROZEN YELLOWFIN TUNAS FOR INDUSTRIAL MANUFACTURE OF PRODUCTS OF 16.04, WHOLE, WEIGHING $=<10$ KG EACH
FROZEN YELLOWFIN TUNAS FOR INDUSTRIAL MANUFACTURE OF PRODUCTS OF 16.04, GILLED AND GUTTED WEIGHING > 10 KG EACH
FROZEN YELLOWFIN TUNAS FOR INDUSTRIAL MANUFACTURE OF PRODUCTS OF 16.04, GILLED AND GUTTED, WEIGHING $=<10$ KG EACH
FROZEN YELLOWFIN TUNAS FOR INDUSTRIAL MANUFACTURE OF PRODUCTS OF 16.04,
WEIGHING > 10 KG EACH, (EXCL. WHOLE, GILLED OR GUTTED)
FROZEN YELLOWFIN TUNAS FOR INDUSTRIAL MANUFACTURE OF PRODUCTS OF 16.04, WEIGHING =< 10 KG EACH, (EXCL. WHOLE, GILLED OR GUTTED)
FROZEN YELLOWFIN TUNAS (EXCL. FOR INDUSTRIAL PROCESSING OR PRESERVATION)
FROZEN SKIPJACK OR STRIPE-BELLIED BONITO FOR INDUSTRIAL PROCESSING OR PRESERVATION, WHOLE FROZEN SKIPJACK OR STRIPE-BELLIED BONITO FOR INDUSTRIAL PROCESSING OR PRESERVATION, GILLED AND GUTTED
FROZEN SKIPJACK OR STRIPE-BELLIED BONITO FOR INDUSTRIAL PROCESSING OR PRESERVATION WITHOUT HEAD AND GILLS, BUT STILL TO BE GUTTED
FROZEN SKIPJACK OR STRIPE-BELLIED BONITO (EXCL. FOR INDUSTRIAL PROCESSING OR PRESERVATION) BLUEFIN TUNAS 'THUNNUS THYNNUS', FROZEN, FOR INDUSTRIAL PROCESSING OR PRESERVATION, WHOLE BLUEFIN TUNAS 'THUNNUS THYNNUS', FROZEN, FOR INDUSTRIAL PROCESSING OR PRESERVATION, GILLED AND GUTTED
BLUEFIN TUNAS 'THUNNUS THYNNUS', FROZEN, FOR INDUSTRIAL PROCESSING OR PRESERVATION (EXCL. WHOLE AND GILLED AND GUTTED)
TUNAS (OF THE GENUS THUNNUS), FROZEN, FOR INDUSTRIAL PROCESSING OR PRESERVATION, WHOLE (EXCL. WHITE, YELLOWFIN AND BLUEFIN) GUTTED
(EXCL. WHITE, YELLOWFIN AND BLUEFIN) (EXCL. WHITE, YELLOWFIN AND BLUEFIN, WHETHER WHOLE OR GILLED AND GUTTED) FROZEN TUNAS (EXCL. ALBACORE OR LONGFINNED AND YELLOWFIN AND THOSE FOR INDUSTRIAL PROCESSING OR PRESERVATION)
FROZEN HERRINGS 'CLUPEA HARENGUS, CLUPEA PALLASII', FROM 1 JANUARY TO 14 FEBRUARY FROZEN HERRINGS 'CLUPEA HARENGUS, CLUPEA PALLASII', FROM 15 FEBRUARY TO 15 JUNE FROZEN HERRINGS 'CLUPEA HARENGUS, CLUPEA PALLASII', FROM 16 JUNE TO 31 DECEMBER FROZEN COD 'GADUS MORHUA'
FROZEN COD 'GADUS OGAC'

03036090
03037110
03037130
03037190
03037191
03037198
03037200
03037300
03037410
03037411
03037420 03037490 03037520 03037550 03037590 03037600 03037700 03037811

03037812
03037813 03037819

03037890
03037911
03037919
03037921
03037923
03037929
03037931
03037935
03037937
03037941
03037945
03037951
03037955
03037960

FROZEN COD 'GADUS MACROCEPHALUS'
FROZEN SARDINES 'SARDINA PILCHARDUS'
FROZEN SARDINES 'SARDINOPS SPP.' AND SARDINELLA
FROZEN BRISLING OR SPRATS, FROM 1 JANUARY TO 14 FEBRUARY
FROZEN BRISLING OR SPRATS, FROM 15 FEBRUARY TO 15 JUNE
FROZEN BRISLING OR SPRATS, FROM 16 JUNE TO 31 DECEMBER
FROZEN HADDOCK
FROZEN COALFISH
FROZEN MACKEREL 'SCOMBER SCOMBRUS AND SCOMBER JAPONICUS', FROM 1 JANUARY TO 14 FEBRUARY FROZEN MACKEREL 'SCOMBER SCOMBRUS AND SCOMBER JAPONICUS', FROM 15 FEBRUARY TO 15 JUNE FROZEN MACKEREL 'SCOMBER SCOMBRUS AND SCOMBER JAPONICUS', FROM 16 JUNE TO 31 DECEMBER FROZEN MACKEREL 'SCOMBER AUSTRALASICUS'
FROZEN DOGFISH OF THE SPECIES 'SQUALUS ACANTHIAS'
FROZEN DOGFISH OF THE SPECIES 'SCYLIORHINUS SPP.'
FROZEN SHARKS (EXCL. DOGFISH)
FROZEN EELS 'ANGUILLA SPP.'
FROZEN SEA BASS 'DICENTRARCHUS LABRAX, DICENTRARCHUS PUNCTATUS'
FROZEN CAPE HAKE 'SHALLOW-WATER HAKE' 'MERLUCCIUS CAPENSIS'
AND DEEPWATER HAKE 'DEEPWATER CAPE HAKE' 'MERLUCCIUS PARADOXUS'
FROZEN ARGENTINE HAKE 'SOUTHWEST ATLANTIC HAKE' 'MERLUCCIUS HUBBSI' FROZEN SOUTHERN HAKE 'MERLUCCIUS AUSTRALIS'
FROZEN HAKE OF THE GENUS 'MERLUCCIUS' (EXCL. CAPE HAKE 'SHALLOW-WATER HAKE',
DEEPWATER HAKE 'DEEPWATER CAPE HAKE', ARGENTINE HAKE 'SOUTHWEST ATLANTIC HAKE AND SOUTHERN HAKE)
FROZEN HAKE 'UROPHYCIS SPP.'
FROZEN CARP
FROZEN FRESHWATER FISH (EXCL. SALMONIDAE, EELS AND CARP)
FROZEN SALTWATER FISH OF THE GENUS EUTHYNNUS, FOR INDUSTRIAL PROCESSING OR PRESERVATION, WHOLE FROZEN SALTWATER FISH OF THE GENUS EUTHYNNUS, FOR INDUSTRIAL PROCESSING OR PRESERVATION, GILLED AND GUTTED
FROZEN SALTWATER FISH OF THE GENUS EUTHYNNUS, FOR INDUSTRIAL PROCESSING
OR PRESERVATION, WITHOUTHEAD AND GILLS, BUT STILL TO BE GUTTED
FROZEN SALTWATER FISH OF THE GENUS EUTHYNNUS (EXCL. THOSE FOR INDUSTRIAL PROCESSING OR PRESERVATION)
FROZEN REDFISH 'SEBASTES MARINUS'
FROZEN REDFISH 'SEBASTES SPP.' (EXCL. SEBASTES MARINUS)
FROZEN SALTWATER FISH OF THE SPECIES BOREOGADUS SAIDA
FROZEN WHITING 'MERLANGUS MERLANGUS'
FROZEN LING
FROZEN ALASKA POLLACK 'THERAGRA CHALCOGRAMMA' AND POLLACK 'POLLACHIUS POLLACHIUS' FROZEN SALTWATER FISH OF THE SPECIES ORCYNOPSIS UNICOLOR, FROM 1 JANUARY TO 14 FEBRUARY

03037961
03037962
03037965
03037971
03037975
03037981
03037983
03037985
03037987
03037991
03037992
03037993
03037994
03037995
03037996
03038010
03038090

03041011
03041013
03041019

03041031
03041033
03041035
03041038
03041091
03041094
03041095
03041096
03041098

03042013

FROZEN FILLETS OF TROUT 'SALMO TRUTTA, SALMO GAIRDNERI, SALMO CLARKI, SALMO AGUABONITA, SALMO
FROZEN SALTWATER FISH OF THE SPECIES ORCYNOPSIS UNICOLOR, FROM 15 FEBRUARY TO 15 JUNE FROZEN SALTWATER FISH OF THE SPECIES ORCYNOPSIS UNICOLOR, FROM 16 JUNE TO 31 DECEMBER FROZEN ANCHOVIES 'ENGRAULIS SPP.'
FROZEN SEA BREAM 'DENTEX DENTEX AND PAGELLUS SPP.'
FROZEN RAY'S BREAM 'BRAMA SPP.'
FROZEN MONKFISH
FROZEN BLUE WHITING
FROZEN SOUTHERN BLUE WHITING 'MICROMESISTIUS AUSTRALIS
FROZEN SWORDFISH 'XIPHIAS GLADIUS'
HORSE MACKEREL 'SCAD' 'CARANX TRACHURUS, TRACHURUS TRACHURUS', FROZEN
FROZEN BLUE GRENADIER 'MACRURONUS NOVAEZEALANDIAE'
FROZEN PINK CUSK-EEL 'GENYPTERUS BLACODES'
FROZEN FISH OF THE SPECIES PELOTREIS FLAVILATUS AND PELTORHAMPHUS NOVAEZEALANDIAE FROZEN FISH OF THE SPECIES KATHETOSTOMA GIGANTEUM
SALTWATER FISH, EDIBLE, FROZEN, N.E.S. FROZEN HARD AND SOFT FISH ROES, FOR THE MANUFACTURE OF DEOXYRIBONUCLEIC ACID OR PROTAMINE SULPHATE
FROZEN EDIBLE FISH LIVERS AND ROES (EXCL. HARD AND SOFT ROES, FOR THE MANUFACTURE OF DEOXYRIBONUCLEIC ACID OR PROTAMINE SULPHATE)
RESH OR CHILLED FILLETS OF TROUT 'SALMO TRUTTA, SALMO GAIRDNERI, SALMO CLARKI,
SALMO AGUABONITA, SALMO GILAE'
FRESH OR CHILLED FILLETS OF PACIFIC SALMON 'ONCORHYNCHUS SPP.', ATLANTIC SALMON
'SALMO SALAR' AND DANUBE SALMON 'HUCHO HUCHO'
FRESH OR CHILLED FILLETS OF FRESHWATER FISH (EXCL. TROUT, PACIFIC SALMON,
ATLANTIC SALMON AND DANUBE SALMON)
FRESH OR CHILLED FILLETS OF COD 'GADUS MORHUA, GADUS OGAC, GADUS MACROCEPHALUS' AND OF FISH OF THE SPECIES 'BOREOGADUS SAIDA'
FISH FILLETS OF COALFISH 'POLLACHIUS VIRENS', FRESH OR CHILLED
FISH FILLETS OF REDFISH 'SEBASTES SPP.', FRESH OR CHILLED FISH FILLETS OF SALTWATER FISH, FRESH OR CHILLED (EXCL. COD, FISH OF THE SPECIES BOREOGADUS SAIDA, COALFISH AND REDFISH)
FRESH OR CHILLED MEAT OF FRESHWATER FISH, WHETHER OR NOT MINCED (EXCL. FILLETS) FLAPS OF HERRING, FRESH OR CHILLED, FROM 1 JANUARY TO 14 FEBRUARY FLAPS OF HERRING, FRESH OR CHILLED, FROM 15 FEBRUARY TO 15 JUNE FLAPS OF HERRING, FRESH OR CHILLED, FROM 16 JUNE TO 31 DECEMBER FISH MEAT 'WHETHER OR NOT MINCED', OF SALTWATER FISH, FRESH OR CHILLED (EXCL. FISH FILLETS AND FLAPS OF HERRING) GILAE'
ROZEN FILLETS OF PACIFIC SALMON 'ONCORHYNCHUS SPP.', ATLANTIC SALMON 'SALMO SALAR' AND DANUBE SALMON 'HUCHO HUCHO'

03042021
03042029
03042031
03042033
03042035
03042037
03042041
03042043
03042045
03042051
03042053
03042055
03042056
03042058
03042059
03042061
03042069
03042071
03042073
03042075
03042079
03042081
03042083
03042085
03042087
03042091
03042096
03049005
03049010
03049020
03049021

03049031

FROZEN MEAT OF HERRING 'CLUPEA HARENGUS, CLUPEA PALLASII', WHETHER OR NOT MINCED FROM 16 JUNE TO 31 DECEMBER (EXCL. FILLETS)
FROZEN FILLETS OF FRESHWATER FISH (EXCL. TROUT, PACIFIC SALMON, ATLANTIC SALMON AND DANUBE SALMON)
FROZEN FILLETS OF COD 'GADUS MACROCEPHALUS'
FROZEN FILLETS OF COD 'GADUS MORHUA, GADUS OGAC' AND OF FISH OF SPECIES 'BOREOGADUS SAIDA' FROZEN FILLETS OF COALFISH
FROZEN FILLETS OF HADDOCK
FROZEN FILLETS OF REDFISH 'SEBASTES MARINUS'
FROZEN FILLETS OF REDFISH 'SEBASTES SPP.' (EXCL. SEBASTES MARINUS)
FROZEN FILLETS OF WHITING 'MERLANGUS MERLANGUS'
FROZEN FILLETS OF LING
FROZEN FILLETS OF TUNA 'THUNNUS' AND OF FISH OF THE GENUS 'EUTHYNNUS'
FROZEN FILLETS OF MACKEREL 'SCOMBER AUSTRALASICUS'
FROZEN FILLETS OF MACKEREL 'SCOMBER SCOMBRUS, SCOMBER JAPONICUS' AND OF FISH OF THE SPECIES 'ORCYNOPSIS UNICOLOR'
FROZEN FILLETS OF CAPE HAKE 'SHALLOW-WATER HAKE' 'MERLUCCIUS CAPENSIS'
AND OF DEEPWATER HAKE 'DEEPWATER CAPE HAKE' 'MERLUCCIUS PARADOXUS'
FROZEN FILLETS OF ARGENTINE HAKE 'SOUTHWEST ATLANTIC HAKE' 'MERLUCCIUS HUBBSI
FROZEN FILLETS OF HAKE OF THE GENUS 'MERLUCCIUS' (EXCL. OF CAPE HAKE 'SHALLOW-WATER HAKE',
OF DEEPWATER HAKE 'DEEPWATER CAPE HAKE' AND OF ARGENTINE HAKE 'SOUTHWEST ATLANTIC HAKE') FROZEN FILLETS OF HAKE 'UROPHYCIS'
FROZEN FILLETS OF DOGFISH 'SQUALUS ACANTHIAS AND SCYLIORHINUS SPP.'
FROZEN FILLETS OF SHARKS (EXCL. DOGFISH)
FROZEN FILLETS OF PLAICE
FROZEN FILLETS OF FLOUNDER
FROZEN FILLETS OF HERRING 'CLUPEA HARENGUS, CLUPEA PALLASII
FROZEN FILLETS OF MEGRIM
FROZEN FILLETS OF RAY'S BREAM 'BRAMA SPP.'
FROZEN FILLETS OF MONKFISH
FROZEN FILLETS OF ALASKA POLLACK
FROZEN FILLETS OF SWORDFISH 'XIPHIAS GLADIUS'
FROZEN FILLETS OF BLUE GRENADIER 'MACRURONUS NOVAEZEALANDIAE'
FROZEN FILLETS OF SALTWATER FISH, N.E.S
SURIMI
FROZEN MEAT OF FRESHWATER FISH, WHETHER OR NOT MINCED (EXCL. FILLETS)
FROZEN MEAT OF HERRING 'CLUPEA HARENGUS, CLUPEA PALLASII', WHETHER OR NOT MINCED,
FROM 1 JANUARY TO 14 FEBRUARY (EXCL. FILLETS)
FROZEN MEAT OF HERRING 'CLUPEA HARENGUS, CLUPEA PALLASII', WHETHER OR NOT MINCED, FROM 15 FEBRUARY TO 15 JUNE (EXCL. FILLETS)

FROZEN MEAT OF REDFISH 'SEBASTES SPP.', WHETHER OR NOT MINCED (EXCL. FILLETS)

03049035
03049038 03049039 03049041 03049045 03049047 03049049 03049051 03049055 03049057 03049059 03049061

03049065 03049097 03051000 03052000 03053011 03053019

03053030
03053050

03053090
03054100
03054200
03054910
03054920
03054930
03054945

03054950
03054980
03055110

03055190

FROZEN MEAT OF COD 'GADUS MACROCEPHALUS', WHETHER OR NOT MINCED (EXCL. FILLETS) FROZEN MEAT (EXCL. FILLETS) OF COD 'GADUS MORHUA'
FROZEN MEAT (EXCL. FILLETS) OF COD 'GADUS OGAC' AND OF FISH OF THE SPECIES 'BOREOGADUS SAIDA'
FROZEN MEAT OF COALFISH, WHETHER OR NOT MINCED (EXCL. FILLETS)
FROZEN MEAT OF HADDOCK, WHETHER MINCED OR NOT (EXCL. FILLETS)
FROZEN MEAT OF HAKE 'MERLUCCIUS', WHETHER OR NOT MINCED (EXCL. FILLETS) FROZEN MEAT OF HAKE 'UROPHYCIS', WHETHER OR NOT MINCED (EXCL. FILLETS) FROZEN MEAT OF MEGRIM, WHETHER OR NOT MINCED (EXCL. FILLETS)
FROZEN MEAT OF RAY'S BREAM 'BRAMA SPP.', WHETHER OR NOT MINCED (EXCL. FILLETS)
FROZEN MEAT OF MONKFISH, WHETHER OR NOT MINCED (EXCL. FILLETS)
FROZEN MEAT OF BLUE WHITING, WHETHER OR NOT MINCED (EXCL. FILLETS)
FISH MEAT OF ALASKA POLLACK 'THERAGRA CHALCOGRAMMA', WHETHER OR NOT MINCED, FROZEN (EXCL. FISH FILLETS AND SURIMI)
FROZEN MEAT (EXCL. FILLETS) OF SWORDFISH 'XIPHIAS GLADIUS'
FROZEN MEAT (EXCL. FILLETS) OF SEAWATER FISH (EXCL. 0304.90-21 TO 0304.90-65)
FLOURS, MEALS AND PELLETS OF FISH, FIT FOR HUMAN CONSUMPTION
FISH LIVERS AND ROES, DRIED, SMOKED, SALTED OR IN BRINE
FILLETS OF COD 'GADUS MACROCEPHALUS', DRIED, SALTED OR IN BRINE, BUT NOT SMOKED FILLETS OF COD 'GADUS MORHUA, GADUS OGAC' AND OF FISH OF THE SPECIES 'BOREOGADUS SAIDA', DRIED, SALTED OR IN BRINE, BUT NOT SMOKED FILLETS OF PACIFIC SALMON 'ONCORHYNCHUS SPP.', OF ATLANTIC SALMON 'SALMO SALAR' AND DANUBE SALMON 'HUCHO HUCHO', SALTED OR IN BRINE, BUT NOT SMOKED
FILLETS OF LESSER OR GREENLAND HALIBUT 'REINHARDTIUS HIPPOGLOSSOIDES', SALTED OR IN BRINE, BUT NOT SMOKED
FILLETS OF FISH, DRIED, SALTED OR IN BRINE, BUT SMOKED (EXCL. COD, AND FISH FILLETS, SALTED OR IN BRINE OF PACIFIC SALMON, ATLANTIC SALMON, DANUBE SALMON AND LESSER OR GREENLAND HALIBUT) PACIFIC SALMON 'ONCORHYNCHUS SPP.', ATLANTIC SALMON 'SALMO SALAR' AND DANUBE SALMON 'HUCHO HUCHO', SMOKED, INCL. FILLETS
HERRINGS 'CLUPEA HARENGUS, CLUPEA PALLASII', SMOKED, INCL. FILLETS
LESSER OR GREENLAND HALIBUT, SMOKED, INCL. FILLETS
ATLANTIC HALIBUT 'HIPPOGLOSSUS HIPPOGLOSSUS', SMOKED, INCL. FILLETS
MACKEREL 'SCOMBER SCOMBRUS, SCOMBER AUSTRALASICUS, SCOMBER JAPONICUS', SMOKED, INCL. FILLETS TROUT 'SALMO TRUTTA, ONCORHYNCHUS MYKISS, ONCORHYNCHUS CLARKI, ONCORHYNCHUS AGUABONITA, ONCORHYNCHUS GILAE, ONCORHYNCHUS APACHE AND ONCORHYNCHUS CHRYSOGASTER', SMOKED, INCL. FILLETS
EELS 'ANGUILLA SPP.', SMOKED, INCL. FILLETS
SMOKED FISH, INCL. FILLETS (EXCL. PACIFIC SALMON, ATLANTIC SALMON, DANUBE SALMON, HERRINGS, LESSER OR GREENLAND HALIBUT, ATLANTIC HALIBUT, MACKEREL, TROUT AND EELS)
COD 'GADUS MORHUA, GADUS OGAC, GADUS MACROCEPHALUS', DRIED, UNSALTED AND UNSMOKED STOCKFISH (EXCL. FILLETS) FILLETS)

03056100

FISH OF THE SPECIES BOREOGADUS SAIDA, DRIED, UNSALTED, NOT SMOKED STOCKFISH (EXCL. FILLETS) FISH OF THE SPECIES BOREOGADUS SAIDA, DRIED AND SALTED, NOT SMOKED STOCKFISH (EXCL. FILLETS) HERRINGS 'CLUPEA HARENGUS, CLUPEA PALLASII', DRIED, WHETHER OR NOT SALTED, NOT SMOKED (EXCL FILLETS)
ANCHOVIES 'ENGRAULIS SPP.' DRIED, WHETHER OR NOT SALTED, NOT SMOKED (EXCL. FILLETS)
LESSER OR GREENLAND HALIBUT 'REINHARDTIUS HIPPOGLOSSOIDES' AND PACIFIC HALIBUT 'HIPPOGLOSSUS STENOLEPIS', DRIED, WHETHER OR NOT SALTED, NOT SMOKED (EXCL. FILLETS)
ATLANTIC HALIBUT 'HIPPOGLOSSUS HIPPOGLOSSUS', DRIED, WHETHER OR NOT SALTED, NOT SMOKED (EXCL. FILLETS)
FISH, DRIED, WHETHER OR NOT SALTED, NOT SMOKED (EXCL. COD, FISH OF THE SPECIES BOREOGADUS SAIDA, HERRINGS, ANCHOVIES, LESSER OR GREENLAND HALIBUT, PACIFIC HALIBUT, ATLANTIC HALIBUT AND FILLETS IN GENERAL)
HERRINGS 'CLUPEA HARENGUS, CLUPEA PALLASII', SALTED OR IN BRINE ONLY (EXCL. FILLETS)
COD 'GADUS MORHUA, GADUS OGAC, GADUS MACROCEPHALUS', SALTED OR IN BRINE ONLY (EXCL. FILLETS) ANCHOVIES 'ENGRAULIS SPP.', SALTED OR IN BRINE ONLY (EXCL. FILLETS)
FISH OF THE SPECIES BOREOGADUS SAIDA, SALTED OR IN BRINE ONLY (EXCL. FILLETS) LESSER OR GREENLAND HALIBUT 'REINHARDTIUS HIPPOGLOSSOIDES' AND PACIFIC HALIBUT 'HIPPOGLOSSUS STENOLEPIS', SALTED OR IN BRINE ONLY (EXCL. FILLETS)
ATLANTIC HALIBUT 'HIPPOGLOSSUS HIPPOGLOSSUS', SALTED OR IN BRINE ONLY (EXCL. FILLETS) PACIFIC SALMON 'ONCORHYNCHUS SPP.', ATLANTIC SALMON 'SALMO SALAR' AND DANUBE SALMON 'HUCHO HUCHO', SALTED OR IN BRINE ONLY (EXCL. FILLETS) FISH, SALTED OR IN BRINE, BUT NEITHER DRIED NOR SMOKED (EXCL. HERRINGS, COD, ANCHOVIES, FISH OF THE SPECIES BOREOGADUS SAIDA, LESSER OR GREENLAND HALIBUT, PACIFIC HALIBUT, ATLANTIC HALIBUT, PACIFIC SALMON, ATLANTIC SALMON, DANUBE SALMON AND FILLE FROZEN CRAWFISH TAILS, WHETHER IN SHELL OR NOT, INCL. CRAWFISH TAILS IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER
FROZEN ROCK LOBSTER AND OTHER SEA CRAWFISH 'PALINURUS SPP., PANULIRUS SPP. AND JASUS SPP.', WHETHER IN SHELL OR NOT, INCL. ROCK LOBSTER AND OTHER SEA CRAWFISH IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER (EXCL. CRAWFISH TAILS)
FROZEN LOBSTERS, WHOLE, INCL. LOBSTERS IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER FROZEN LOBSTERS (EXCL. WHOLE)
FROZEN SHRIMPS AND PRAWNS OF THE PANDALIDAE FAMILY, WHETHER IN SHELL OR NOT, INCL. SHRIMPS AND PRAWNS IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER
ROZEN SHRIMPS OF THE GENUS CRANGON, WHETHER IN SHELL OR NOT, INCL. SHRIMPS AND PRAWNS IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER
FROZEN DEEPWATER ROSE SHRIMPS 'PARAPENAEUS LONGIROSTRIS', WHETHER IN SHELL OR NOT, INCL. SHRIMPS IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER
FROZEN SHRIMPS OF THE GENUS 'PENAEUS', WHETHER IN SHELL OR NOT, INCL. SHRIMPS IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER
FROZEN SHRIMPS AND PRAWNS, WHETHER IN SHELL OR NOT, INCL. SHRIMPS AND PRAWNS IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER (EXCL. 'PANDALIDAE', 'CRANGON', DEEPWATER ROSE SHRIMPS 'PARAPENAEUS LONGIROSTRIS' AND SHRIMPS OF THE GENUS 'PENAEUS')
FROZEN CRABS 'PARALITHODES CAMCHATICUS, CHIONOECETES SPP.' AND 'CALLINECTES SAPIDUS', WHETHER IN

SHELL OR NOT, INCL. CRABS IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER
03061430 FROZEN CRABS 'CANCER PAGURUS', WHETHER IN SHELL OR NOT, INCL. CRABS IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER
03061490 FROZEN CRABS, WHETHER IN SHELL OR NOT, INCL. CRABS IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER (EXCL. 'PARALITHODES CAMCHATICUS, CHIONOECETES SPP.', 'CALLINECTES SAPIDUS', AND 'CANCER PAGURUS')
03061910 FROZEN FRESHWATER CRAYFISH, WHETHER IN SHELL OR NOT, INCL. CRAYFISH IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER
03061930 FROZEN NORWAY LOBSTERS, WHETHER IN SHELL OR NOT, INCL. NORWAY LOBSTERS IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER
03061990 FROZEN CRUSTACEANS, FIT FOR HUMAN CONSUMPTION, WHETHER IN SHELL OR NOT, INCL. CRUSTACEANS IN SHELL, COOKED BEFOREHAND BY STEAMING OR BY BOILING IN WATER (EXCL. ROCK LOBSTER AND OTHER SEA CRAWFISH, LOBSTERS, SHRIMPS, PRAWNS, CRABS, FRESHWATER CRAY
03062100 ROCK LOBSTER AND OTHER SEA CRAWFISH, WHETHER IN SHELL OR NOT, INCL. IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER (EXCL. FROZEN)
03062210
03062291
03062299
03062310 SHRIMPS AND PRAWNS OF THE PANDALIDAE FAMILY, WHETHER IN SHELL OR NOT, INCL. IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER (EXCL. FROZEN)
03062331 SHRIMPS OF THE GENUS CRANGON, WHETHER IN SHELL OR NOT, FRESH, CHILLED OR COOKED BY STEAMING OR BY BOILING IN WATER
03062339 SHRIMPS OF THE GENUS CRANGON, WHETHER IN SHELL OR NOT, LIVE, DRIED, SALTED OR IN BRINE, INCL. SHRIMPS IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER, WHETHER OR NOT CHILLED
03062390 SHRIMPS AND PRAWNS, WHETHER IN SHELL OR NOT, INCL. SHRIMPS IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER (EXCL. 'PANDALIDAE' AND 'CRANGON', AND FROZEN)
03062410 CRABS 'PARALITHODES CAMCHATICUS, CHIONOECETES SPP.' AND 'CALLINECTES SAPIDUS', WHETHER IN SHELL OR NOT, INCL. IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER (EXCL. FROZEN)
03062430 CRABS 'CANCER PAGURUS', WHETHER IN SHELL OR NOT, INCL. IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER (EXCL. FROZEN)
03062490 CRABS, WHETHER IN SHELL OR NOT, INCL. IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER (EXCL. FROZEN AND 'PARALITHODES CAMCHATICUS, CHIONOECETES SPP.', 'CALLINECTES SAPIDUS', AND 'CANCER PAGURUS')
03062910
FRESHWATER CRAYFISH, WHETHER IN SHELL OR NOT, INCL. IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER (EXCL. FROZEN)
03062930 NORWAY LOBSTERS, WHETHER IN SHELL OR NOT, INCL. IN SHELL, COOKED BY STEAMING OR BY BOILING IN WATER (EXCL. FROZEN)
03062990 CRUSTACEANS, FIT FOR HUMAN CONSUMPTION, WHETHER IN SHELL OR NOT, LIVE, FRESH, CHILLED, DRIED, SALTED OR IN BRINE, INCL. CRUSTACEANS IN SHELL, COOKED BEFOREHAND BY STEAMING OR BY BOILING IN WATER (EXCL. ROCK LOBSTER AND OTHER SEA CRAWFISH, LOBSTER
03071010 LIVE FLAT OYSTERS, WEIGHING $=<40$ G EACH INCL. SHELL
03071090 OYSTERS, LIVE FRESH, CHILLED, FROZEN, DRIED, SALTED OR IN BRINE (EXCL. LIVE FLAT OYSTERS, WEIGHING $=<40$ G EACH INCL. SHELL)

LIVE, FRESH OR CHILLED SCALLOPS, INCL. QUEEN SCALLOPS, OF THE GENERA PECTEN, CHLAMYS OR PLACOPECTEN, WITH OR WITHOUT SHELL
03072910
03072990
03073110
03073190
03073910
03073990
03074110
03074191 03074199

03074901
03074911
03074918
03074931
03074933
03074935
03074938
03074951
03074959
03074971
03074991
03074999
03075100
03075910
03075990
03076000
03079100

03079911
03079913
03079915
03079918

COOUILLES ST. JACOUES 'PECTEN MAXIMUS', WITH OR WITHOUT SHELL, FROZEN
SCALLOPS, INCL. QUEEN SCALLOPS, OF THE GENERA PECTEN, CHLAMYS OR PLACOPECTEN, FROZEN, DRIED, SALTED OR IN BRINE, WITH OR WITHOUT SHELL (EXCL. COQUILLES ST. JACQUES 'PECTEN MAXIMUS')
MUSSELS 'MYTILUS SPP.', LIVE, FRESH OR CHILLED, WITH OR WITHOUT SHELL
MUSSELS 'PERNA SPP.', LIVE, FRESH OR CHILLED, WITH OR WITHOUT SHELL
MUSSELS 'MYTILUS SPP.', FROZEN, DRIED, SALTED OR IN BRINE, WITH OR WITHOUT SHELL
MUSSELS 'PERNA SPP.', FROZEN, DRIED, SALTED OR IN BRINE, WITH OR WITHOUT SHELL
CUTTLE FISH 'SEPIA OFFICINALIS, ROSSIA MACROSOMA, SEPIOLA SPP.', LIVE, FRESH OR CHILLED, WITH OR WITHOUT SHELL
SQUID 'LOLIGO SPP., OMMASTREPHES SAGITTATUS', LIVE, FRESH OR CHILLED, WITH OR WITHOUT SHELL SQUID 'OMMASTREPHES SPP.', 'NOTOTODARUS SPP. AND SEPIOTEUTHIS SPP.', LIVE, FRESH OR CHILLED, WITH OR WITHOUT SHELL (EXCL. 'OMMASTREPHES SAGITTATUS')
FROZEN LESSER CUTTLE FISH 'SEPIOLA RONDELETI', WITH OR WITHOUT SHELL
FROZEN CUTTLE FISH 'SEPIOLA', WITH OR WITHOUT SHELL (EXCL. 'SEPIOLA RONDELETI')
FROZEN CUTTLE FISH 'SEPIA OFFICINALIS' AND 'ROSSIA MACROSOMA', WITH OR WITHOUT SHELL
FROZEN SQUID 'LOLIGO VULGARIS', WITH OR WITHOUT SHELL
FROZEN SQUID 'LOLIGO PEALEI', WITH OR WITHOUT SHELL
SQUID 'LOLIGO PATAGONICA', FROZEN
SQUID 'LOLIGO SPP.', FROZEN, (EXCL. LOLIGO VULGARIS, PEALEI AND PATAGONICA)
FROZEN SQUID 'OMMASTREPHES SAGITTATUS', WITH OR WITHOUT SHELL
FROZEN SQUID 'OMMASTREPHES SPP.', 'NOTOTODARUS SPP.' AND 'SEPIOTEUTHIS SPP.', WITH OR WITHOUT SHELL (EXCL. 'OMMASTREPHES SAGITTATUS')
CUTTLE FISH 'SEPIA OFFICINALIS, ROSSIA MACROSOMA, SEPIOLA SPP.', DRIED, SALTED OR IN BRINE, WITH OR WITHOUT SHELL
SQUID 'LOLIGO SPP., OMMASTREPHES SAGITTATUS', DRIED, SALTED OR IN BRINE, WITH OR WITHOUT SHELL SQUID 'OMMASTREPHES SPP.', 'NOTOTODARUS SPP.', 'SEPIOTEUTHIS SPP.', DRIED, SALTED OR IN BRINE, WITH OR WITHOUT SHELL (EXCL. 'OMMASTREPHES SAGITTATUS')
LIVE, FRESH OR CHILLED OCTOPUS 'OCTOPUS SPP.', WITH OR WITHOUT SHELL FROZEN OCTOPUS 'OCTOPUS SPP.', WITH OR WITHOUT SHELL
OCTOPUS 'OCTOPUS SPP.' DRIED, SALTED OR IN BRINE, WITH OR WITHOUT SHELL
SNAILS, LIVE, FRESH, CHILLED, FROZEN, SALTED, DRIED OR IN BRINE, WITH OR WITHOUT SHELL (EXCL. SEA SNAILS) LIVE, FRESH OR CHILLED MOLLUSCS, FIT FOR HUMAN CONSUMPTION, WITH OR WITHOUT SHELL, N.E.S., INCL. SEA URCHINS, SEA CUCUMBERS AND OTHER AQUATIC INVERTEBRATES OTHER THAN CRUSTACEANS; FLOURS, MEALS AND PELLETS OF AQUATIC INVERTEBRATES OTHER THAN CRUS
ILLEX SPP.', WITH OR WITHOUT SHELL, FROZEN
STRIPED VENUS AND OTHER 'VENERIDAE', WITH OR WITHOUT SHELL, FROZEN
FROZEN JELLYFISH 'RHOPULEMA SPP.'
FROZEN MOLLUSCS, FIT FOR HUMAN CONSUMPTION, WITH OR WITHOUT SHELL, N.E.S., INCL. SEA URCHINS, SEA CUCUMBERS AND OTHER AQUATIC INVERTEBRATES OTHER THAN CRUSTACEANS; FROZEN FLOURS, MEALS AND

PELLETS OF AQUATIC INVERTEBRATES OTHER THAN CRUSTACEANS,
MOLLUSCS, FIT FOR HUMAN CONSUMPTION, WITH OR WITHOUT SHELL, DRIED, SALTED OR IN BRINE, N.E.S. INCLUDING SEA URCHINS, SEA CUCUMBERS AND OTHER AQUATIC INVERTEBRATES OTHER THAN CRUSTACEANS; FLOURS, MEALS AND PELLETS OF AQUATIC INVERTEBRATES OTHER TH

03990000
05119110
05119190
15041010
15041091

15041099
15042010
15042090

16041100
16041210

16041291

16041299

16041311
16041319
16041390
16041411
16041416
16041418
16041490
FILLETS OF MACKEREL OF THE SPECIES SCOMBER SCOMBRUS AND SCOMBER JAPONICUS, PREPARED OR PRESERVED
16041519 MACKEREL OF THE SPECIES SCOMBER SCOMBRUS AND SCOMBER JAPONICUS, PREPARED OR PRESERVED, WHOLE OR IN PIECES (EXCL. MINCED MACKEREL AND FILLETS OF MACKEREL)
16041590

16041600 PREPARED OR PRESERVED ANCHOVIES, WHOLE OR IN PIECES (EXCL. MINCED)

16041910
16041931 16041939

16041950
16041991

16041992
16041993
16041994
16041995

16041998
16042005
16042010
16042030
16042040
16042050
16042070

16042090

16043010
16043090
16051000
16052010
16052091
16052099

16053010

16053090
16054000
16059011 MUSSELS OF THE SPECIES MYTILUS AND OF THE SPECIES PERNA, PREPARED OR PRESERVED, IN AIRTIGHT CONTAINERS

16059019
16059030
16059090
16990000 23012000

23099010

MUSSELS OF THE SPECIES MYTILUS AND OF THE SPECIES PERNA, PREPARED OR PRESERVED (EXCL. MUSSELS IN AIRTIGHT CONTAINERS)
MUSSELS, SNAILS AND OTHER MOLLUSCS, PREPARED OR PRESERVED (EXCL. MUSSELS OF THE SPECIES MYTILUS AND OF THE SPECIES PERNA)
SEA URCHINS, SEA CUCUMBERS, JELLYFISH AND OTHER AQUATIC INVERTEBRATES, PREPARED OR PRESERVED (EXCL. MOLLUSCS)
INTRASTAT: ESTIMATION OF MISSING DECLARATIONS OF CHAPTER 16
FLOURS, MEALS AND PELLETS OF FISH OR CRUSTACEANS, MOLLUSCS OR OTHER AQUATIC INVERTEBRATES, UNFIT FOR HUMAN CONSUMPTION
FISH OR MARINE MAMMAL SOLUBLES, TO SUPPLEMENT FEEDINGSTUFFS PRODUCED IN THE AGRICULTURAL SECTOR

Appendix 6
Account Statistics for 2001 in 1.000 EUR

| Branches (NACE) | 15.20.10 | $\begin{gathered} 15.20 .1 \\ 1 \\ \hline \end{gathered}$ | 15.20.12 | 15.20.13 | 15.20.14 | 15.20.15 | 15.20.16 | 15.20.17 | 15.20.18 | 15.20.19 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Total } \\ 15.20 .11- \\ 19 \end{gathered}$ | Cod, flatfish etc. | Cod, flatfish etc. | Mackerel | Herring | Herring | Herring | Molluscs | Shrimps and crustacean S | Mixed production |
| 21.1 Processing |  | Primary | Mixed | Preservel <br> Prepared | Primary | Secondar y | Preserved/ Prepared | Preserved/ Prepared | Preservel Prepared | Mixed |
| Number of firms | 49 | 14 | 4 | 4 | 4 | 7 | 3 | 3 | 6 | 4 |
| Operating result: |  |  |  |  |  |  |  |  |  |  |
| Income | 1.002.659 | 192.894 | 256.143 | 83.489 | 65.692 | 71.243 | 29.897 | 42.204 | 84.637 | 176.460 |
| + Other income | 2.398 | 3.797 | -3.633 | 1.929 | 2.513 | 2.274 | 6.045 | -252 | -92 | -10.184 |
| - Labour | 130.292 | 25.596 | 32.199 | 11.983 | 8.801 | 11.219 | 5.429 | 6.769 | 6.252 | 22.042 |
| - Energy | 13.207 | 1.439 | 2.468 | 3.201 | 892 | 811 | 540 | 888 | 594 | 2.373 |
| - Raw material | 121.432 | 12.671 | 23.980 | 7.257 | 5.849 | 9.995 | 3.696 | 3.637 | 9.603 | 44.744 |
| - Fish material | 558.453 | 133.820 | 162.666 | 34.806 | 39.062 | 36.128 | 14.641 | 16.655 | 50.556 | 70.118 |
| - Packaging | 47.368 | 4.968 | 5.194 | 17.366 | 621 | 2.633 | 5.627 | 2.346 | 1.954 | 6.658 |
| - Other running costs | 104.964 | 14.981 | 21.129 | 10.913 | 9.593 | 10.048 | 4.722 | 6.676 | 9.049 | 17.853 |
| - Financial transact. | 4.808 | 342 | 581 | -2.175 | -20 | 1.150 | 226 | 212 | 901 | 3.591 |
| - Tax | 7.073 | 768 | 957 | 292 | 965 | 493 | 337 | 1.370 | 1.647 | 244 |
| Net profit | 17.460 | 2.106 | 3.338 | 1.773 | 2.442 | 1.040 | 723 | 3.397 | 3.988 | -1.347 |
|  |  |  |  |  |  |  |  |  |  |  |
| Fixed cost * | 24.802 | 3.044 | 4.041 | 769 | 1.298 | 1.340 | 3.576 | 2.590 | 2.946 | 5.200 |
| Financial position | 32\% | 36\% | 54\% | 29\% | 33\% | 28\% | 25\% | 34\% | 26\% | 20\% |
|  |  |  |  |  |  |  |  |  |  |  |
| Investments (assets) |  |  |  |  |  |  |  |  |  |  |
| + Total fixed assets | 219.563 | 21.957 | 30.589 | 44.889 | 15.546 | 15.145 | 8.526 | 13.750 | 10.664 | 58.497 |
| + Total current assets | 315.770 | 33.945 | 62.764 | 43.352 | 21.810 | 17.331 | 16.332 | 8.868 | 31.892 | 79.477 |
| Total assets | 535.334 | 55.902 | 93.353 | 88.241 | 37.356 | 32.476 | 24.858 | 22.618 | 42.557 | 137.974 |
|  |  |  |  |  |  |  |  |  |  |  |
| Net capital | 169.725 | 20.189 | 50.455 | 25.528 | 12.425 | 9.217 | 6.216 | 7.679 | 10.962 | 27.053 |
| + Provisions | 16.698 | 835 | 2.992 | 5.322 | 1.717 | 1.487 | 536 | 963 | 481 | 2.366 |
| + Long-term debt | 77.106 | 3.979 | 7.595 | 18.362 | 7.175 | 5.800 | 4.992 | 4.408 | 4.465 | 20.332 |
| + Short-term debt | 271.804 | 30.898 | 32.311 | 39.029 | 16.040 | 15.972 | 13.114 | 9.568 | 26.649 | 88.223 |
| Total liabilities | 535.334 | 55.902 | 93.353 | 88.241 | 37.356 | 32.476 | 24.858 | 22.618 | 42.557 | 137.974 |
|  |  |  |  |  |  |  |  |  |  |  |
| Employment | 4.471 | 898 | 1.087 | 399 | 281 | 330 | 178 | 212 | 200 | 886 |
| FTE | 3.560 | 708 | 869 | 320 | 226 | 264 | 142 | 169 | 152 | 709 |

*Fixed cost is equal to investments

Account Statistics for 2001 in 1.000 EUR
1 EUR= 7,46 DKK

| Branches (NACE) | 15.20.20 | 15.20.21 | 15.20.22 | 15.20.23 | 15.20.24 | 15.20.30 | 15.20.10-30 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Total } \\ 15.20 .21- \\ 24 \\ \hline \end{gathered}$ | Salmonoi ds | Salmonoids | Salmonoids | Smokehouses | Fish meal factories | $\begin{gathered} \text { Total } \\ 15.20 .10-30 \end{gathered}$ |
| 22.1 Processing |  | Primary | Secondary | Mixed | Mixed | Secondary |  |
| Number of firms | 23 | 0 | 15 | 8 | 0 | 5 | 77 |
| Operating result: |  |  |  |  |  |  |  |
| Income | 327.286 | 0 | 171.835 | 155.451 | 0 | 311.812 | 1.641.758 |
| + Other income | 5.473 | 0 | 22 | 5.450 | 0 | 767 | 8.637 |
| - Labour | 58.255 | 0 | 31.398 | 26.857 | 0 | 21.078 | 209.625 |
| - Energy | 3.422 | 0 | 2.006 | 1.416 | 0 | 17.510 | 34.139 |
| - Raw material | 22.179 | 0 | 13.975 | 8.204 | 0 | 11.652 | 161.942 |
| - Fish material | 184.227 | 0 | 88.268 | 95.960 | 0 | 213.955 | 949.196 |
| - Packaging | 18.025 | 0 | 10.818 | 7.207 | 0 | 2.910 | 69.063 |
| - Other running costs | 32.751 | 0 | 19.594 | 13.156 | 0 | 33.695 | 171.410 |
| - Financial transactions | 1.410 | 0 | 425 | 984 | 0 | 2.590 | 8.807 |
| - Tax | 4.081 | 0 | 1.337 | 2.744 | 0 | 335 | 11.490 |
| Net profit | 8.409 | 0 | 4.037 | 4.373 | 0 | 8.854 | 34.723 |
| Fixed cost * | -4.900 | 0 | 2.448 | -7.348 | 0 | 12.038 | 45.077 |
| Financial position | 22\% | 0\% | 19\% | 26\% | 0\% | 19\% | 28\% |
| Investments (assets) |  |  |  |  |  |  |  |
| + Total fixed assets | 51.021 | 0 | 29.416 | 21.605 | 0 | 34.279 | 304.864 |
| + Total current assets | 97.976 | 0 | 53.069 | 44.907 | 0 | 78.244 | 491.991 |
| Total assets | 148.998 | 0 | 82.486 | 66.512 | 0 | 112.523 | 796.854 |
|  | 0 | 0 | 0 | 0 | 0 |  | 0 |
| Net capital | 32.712 | 0 | 15.561 | 17.151 | 0 | 21.037 | 223.474 |
| + Provisions | 2.044 | 0 | 1.430 | 613 | 0 | 142 | 18.884 |
| + Long-term debt | 20.308 | 0 | 12.242 | 8.066 | 0 | 25.892 | 123.306 |
| + Short-term debt | 93.934 | 0 | 53.253 | 40.681 | 0 | 65.452 | 431.190 |
| Total liabilities | 148.998 | 0 | 82.486 | 66.512 | 0 | 112.523 | 796.854 |
| Employment | 2.111 | 0 | 1.151 | 960 | 0 | 493 | 7.075 |
| FTE | 1.687 | 0 | 917 | 770 | 0 | 397 | 5.644 |

*Fixed cost is equal to investments
Danish Research Institute of Food Economics
Rolighedsvej 25, 1958 Frederiksberg C, Denmark
Tel. +45 35286800 / Fax +45 3528
6803
www.foi.dk

The completed accounting form can be submitted to the institute on a discette or by e-mail
FISHERY
Accounting form 2003



Table 3

## Costs

|  | $\begin{gathered} \text { Lin } \\ \text { no. } \end{gathered}$ | EUR |
| :---: | :---: | :---: |
| Energy: Fuel quantity (litre): |  |  |
| Fuel excl. duties | 1 |  |
| Bonus and discount on fuel (-) | 2 |  |
| Other expenses on energy and lubrications excl. duties | 3 |  |
| Tax and duties on energy | 4 |  |
| Other operating costs, including sales and landing costs: |  |  |
| Ice, salt and bait etc., used on the fishing vessel | 5 |  |
| Provisions | 6 |  |
| Harbour dues, pilot service and brokerage (landings in foreign ports) | 7 |  |
| Collecting, sorting and auctioneering | 8 |  |
| Packing, chilling and freight | 9 |  |
| Other landing service costs (not hired crew) | 10 |  |
| Landing service provided by own crew (not included in crew share/salary) | 11 |  |
| Market regulation fees | 12 |  |
| Subscription to fishermen's union, fishery duties (per mille duty) | 13 |  |
| Purchase of fishing rights or quotas (incl. quota in 3'rd country fishing zones) | 14 |  |
| Other operating costs (please specify in table 8) | 15 |  |

## Rent, including leasing:

Rent of equipment, incl. leasing for a period less than a year 16
Rent of buildings (e.g. gear sheds), incl. leasing of less than a year 17

## Maintenance:

Maintenance of vessel, hull etc.
Maintenance of engines and winches 22
Maintenance of electronic equipment 23
Maintenance of fishing gear (purchase should be added to assets) 24
Maintenance of landbased plants and equipment, e.g. truck or van 25
Stores, various articles for consumption 26
Insurance (excl. personnel insurance):
Insurance of vessel, equipment and fishing gear etc.
Other expenses on insurance (landbased plants, truck, van, liability etc.) 32
Administrative expenses:
Administration, accounting etc.
33
Communication, telephone etc. (exclusive private use) 34
Operating share of cost on private vehicles (exclusive depreciation) 35
Other services 36
Depreciations:
Depreciation on fishery assets (transfer from table 4, line 8, column 4) 37
Operating share of depreciation on private vehicles etc. 38

## Skatter: Taxes:

Skatter: Tax on real property (fishery assets)
Wage expenses:
Salary to other partners/shareholders 41
Salary to hired skipper 42
Salary to hired crew (including pension) 43
Paid/received salary from other vessels for instance when pairtrawling (+/-) 44
Subsidies and repayments e.g. for trainees or long-term unemployed (-) 45
Other personnel expenses (insurance, social expenses etc.) 46
Salary to the owner/fisherman (skipper/owners share) 47
Total costs (1+2+...+47) 50

| Table 4 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Assets <br> Assets in fishing firm |  | Beginning of year | Regulation due to price changes | Investments purchase - sale | Depreciation | End of year |
| Physical assets |  | 1 | 2 | 3 | 4 | 5 |
| Vessel, hull etc. | 1 |  |  |  |  |  |
| Engines and winches | 2 |  |  |  |  |  |
| Electronic equipment | 3 |  |  |  |  |  |
| Fishing gear | 4 |  |  |  |  |  |
| Van, truck etc. | 5 |  |  |  |  |  |
| Buildings (gear sheds etc.) | 6 |  |  |  |  |  |
| Stocks | 7 |  |  |  |  |  |
| Fishing rights (IQ, ITQ) | 8 |  |  |  |  |  |
| Total operating value | 9 | 0 | 0 | 0 | 0 | 0 |
| Financial assets |  |  |  |  |  |  |
| Joint/shared bonds | 11 |  |  |  |  |  |
| Bonds (incl. stocks etc.) | 12 |  |  |  |  |  |
| Operating funds | 13 |  |  |  |  |  |
| Bank deposits | 14 |  |  |  |  |  |
| Outstanding V.A.T. | 15 |  |  |  |  |  |
| Outstanding debts | 16 |  |  |  |  |  |
| Cash | 17 |  |  |  |  |  |
| Financial assets, total | 18 | 0 | 0 |  |  | 0 |
| Total assets in fishing firm | 20 | 0 | $0$ | 0 | 0 | 0 |
| Table 4A |  |  |  |  |  |  |
|  |  |  |  |  |  | EUR |
| Operation value of physical assets end of year, excl. passive partners share *) |  |  |  |  | 1 |  |
| Fiscal value of fishery assets, end of year |  |  |  |  | 2 |  |
| Total possible regained depreciation |  |  |  |  | 3 | 0 |
| Devaluation of debitors / Negative purchasesum on stocks for principal holder |  |  |  |  | 4 |  |
| Advanced fiscal surplus or deficit (cf. Tax rules for private enterprise) |  |  |  |  | 5 |  |

*) Excluding fishing rights / individual quotas (IQ,ITQ) from line 8 above.

Jump to auxil. table by entering Ctrl + b

Transfer the calculated data to table 4 by entering Ctrl + x

Auxiliary table to calculate regulation and depreciation

| of Fishery assets |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fishery assets | Beginning <br> of year | \% | Regu- <br> lation | Invest. <br> buy/sale | \% | Depre- <br> ciation | End of year |
| Hull, etc. |  | 0 | 0 |  |  | 0 | 0 |
| Engines |  | -2 | 0 |  |  | 0 | 0 |
| Electronics |  | -4 | 0 |  |  | 0 | 0 |
| Gear |  | 0 | 0 |  |  | 0 | 0 |
| Van |  |  |  |  |  | 0 | 0 |
| Buildings |  |  |  |  |  | 0 | 0 |
| Stocks |  |  |  |  |  |  |  |
| Total | 0 |  | 0 | 0 |  | 0 | 0 |

Fill in the white cells ...

Table 5
Interest

| Interest income, dividend <br> etc. |  | EUR |
| :--- | :--- | :--- |
| Interest expenditure: |  |  |
| Fishery bank (-) | 2 |  |
| Ship fund loans (-) | 3 |  |
| Credit institute loans (-) | 4 |  |
|  |  |  |
| Foreign currency loans (-) | 5 |  |
| Cash credit / overdraft (-) | 6 |  |
| Financial institution loans (- |  |  |
| ) | 7 |  |
| Passive partners profit | 8 |  |
| Share | 9 |  |
| Mortgage bonds (-) |  |  |
| Leasing (pay - repayment) <br> $(-)$ | 10 |  |
|  | 14 |  |

Table 6
External capital

|  |  | Beginning | End of |  |
| :--- | :---: | :---: | :---: | :---: |
| Nominal debts: |  | of year | year | Regulation |
| Special financing: <br> Fishery Bank (auxiliary <br> table) | 22 |  | 2 | 3 |
| Ship fund loans | 23 |  |  |  |
| Credit institute loans | 24 |  |  |  |
| Financial institutions: |  |  |  |  |
| Foreign currency loans | 25 |  |  |  |
| Cash credit / overdraft. | 26 |  |  |  |
| Financial institution loans | 27 |  |  |  |

Other debt:

| Passive partners shares | 28 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Mortgage bonds | 29 |  |  |  |
| Leasing | 30 |  |  |  |
| Debitors | 31 |  |  |  |
| VAT and tax debt | 32 |  |  |  |
| Payable due, period <br> interest | 33 |  |  |  |
| Salary owed | 34 |  |  |  |
| Other debts | 35 |  |  |  |
| Nominal debts, total | 40 |  | 0 |  |


|  |  | Beginning | End of | Realised |
| :--- | ---: | :---: | :---: | :---: |
| Regulation to cash <br> value: | 42 |  |  |  |
| Special financing: <br> Fishery Bank (auxiliary <br> table) | 43 |  | year | gain or loss |



Table 7
Capital account and balancing

|  |  | EUR | Total |
| :---: | :---: | :---: | :---: |
| Fishery assets, beginning of year (from table 4, line 20, column 1) | A | 0 |  |
| Cash value of debt, beginning of year (from table 6, line 50, col.1) | B | 0 |  |
| Own capital concerning the fishing firm, beginning of year | C |  | 0 |
| Operating profit from fishery firm (table 2, line 80 - table 3, line 50) | D |  | 0 |
| Net interest income, fishery firm (from table 5, line 15) | E |  | 0 |
| Capital changes: |  |  |  |
| Capital changes on assets (from table 4, line 20, col. 2) | F |  | 0 |
| Capital changes on debt (from table 6, line 51, column 3) | G |  | 0 |
| Other capital changes concerning the fishing firm: |  |  |  |
| Corporate taxation, tax paid this year | 1 |  |  |
| One-off subsidies, e.g. modernization of vessel | 2 |  |  |
| Remission of debt | 3 |  |  |
| Other one-off entries (description in table 8) | 4 |  |  |
| Confiscations amount in connection with violation of fishery regulations | 5 |  |  |
| Correction of balance (state the type in table 8) | 6 |  |  |
| Total other capital changes concerning the fishing firm | H |  | 0 |
| Fishery assets, end of year (from table 4, line 20, col. 5) | 1 | 0 |  |
| Cash value of debt, end of year (from table 6, line 50, col. 2) | J | 0 |  |
| Own capital concerning the fishing firm, end of year | K |  | 0 |
| Transfer to the owners private economy (to table 10 line E) | L |  | 0 |


| Supplementary information |  | Calculated rent <br> on capital |  |  |
| :--- | ---: | :---: | :---: | :---: |
| The fisherman/owners share of the vessel | 7 |  |  | $\%$ |
| Other active (working) partners shares | 8 |  |  | 0.00 |
| Evt. passive partners shares | 9 |  | 0.00 |  |
| Total |  |  |  |  |

Table 8: Comments

## Table 9

## Private income, assets and liabilities



Table 10
Private capital accounts and Balancing

|  |  | EUR | Total |
| :---: | :---: | :---: | :---: |
| Privately owned assets, beginning of year (from table 9, line 40, col. 1) | A | 0 |  |
| Private debt, beginning of year (from table 9, line 25, col. 1) | B | 0 |  |
| Own capital (excl. fishing firm), beginning of year | C |  | 0 |
| Other private income plus net interest income (from table 9, line $6+15$ ) | D |  | 0 |
| Total capital transfer from fishing firm (from table 7, line L) | E | 0 |  |
| .... Of which transferred to active (working) partners | 0 |  |  |
| Capital withdrawal excluding other active partners shares (E 0 ) | F |  | 0 |
| Capital regulation: |  |  |  |
| Regulation due to price changes on private assets (table 9, l. 40, col. 2) | G |  | 0 |
| Other regulation of private capital |  |  |  |
| Child allowance | 1 |  |  |
| Payment to pension contracts (-) | 2 |  |  |
| Other one-off entries plus extraordinary balance corrections | 3 |  |  |
| Other capital regulation total | H |  | 0 |
| Private share of private car expenses | 4 |  |  |
| Private share of depreciation on private car (T. 9 lin. 34 col.4)-(T. 3 lin.38) | 5 | 0 |  |
| Depreciation on non-commercial assets (from T.9, line 35, col. 4) | 6 | 0 |  |
| Expenses on privately owned residence (tax, insurr. and maintenance) | 7 |  |  |
| Personal taxes | 8 |  |  |
| Other private consumption | 9 |  |  |
| Private expenses total | J |  | 0 |
| Own capital (excl. fishing firm), end of year (C+D+F+G+HJ) | K |  | 0 |

## Control

Private assets total, end of year (from tabel 9, line 40, column 5)
Private debt, end of year (from table 9, line 25, column 2)
Own capital (excl. fishing firm), end of year


| Supplementary information |  |
| :---: | :---: |
| Number of adults in the family | 10 |
| Nubmer of children (<18 years) | 11 |

Table 11
Vessel data

|  |  | Main vessel | vessel 2 | vessel 3 | vessel 4 | vessel 5 | vessel 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 |
| Vessel registration number | 1 |  |  |  |  |  |  |
| Home port | 2 |  |  |  |  |  |  |
| Start date | 3 |  |  |  |  |  |  |
| End date | 4 |  |  |  |  |  |  |
| Insurance value, EUR |  |  |  |  |  |  |  |
| Total (incl. fishing gear) ** | 5 |  |  |  |  |  |  |
| of which: Hull etc. | 6 |  |  |  |  |  |  |
| - engines and winches | 7 |  |  |  |  |  |  |
| - electronic equipment | 8 |  |  |  |  |  |  |

** Insurance value for total loss of ship. If division is possible it should be based on factual information.

Vessel activity, days at sea

- North Sea
- The Skagerrak
- The Kattegat
- The Baltic area
- Distant waters

Total days at sea
Other days in activity
Inactive days
Days total (365)

|  | Main <br> vessel | vessel 2 | vessel 3 | vessel 4 | vessel 5 | vessel 6 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 11 |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |
| 13 |  |  |  |  |  |  |
| 14 |  |  |  |  |  |  |
| 15 |  |  |  |  |  |  |
| 16 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 |  |  |  |  |  |  |
| 18 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 12
Specification of labour

| labour | persons | dishing <br> trips | days at <br> sea | days <br> at land | day at sea |  |
| :--- | ---: | :---: | :---: | :---: | :---: | :---: |
| Fisherman | 1 | 1 | 2 | 3 | 4 | 5 |
| Partners/shareholders | 2 |  |  |  |  |  |
| Hired skipper | 3 |  |  |  |  |  |
| Hired crew | 4 |  |  |  |  |  |
| Sum (control) | 5 |  |  |  |  |  |

## Addendum to the Danish Technical Report for fisheries data collection in 2003.

## Surveys:

The Danish research vessel R/V DANA participated the fourth quarter BITS in the Baltic for the period 4/1125/11 2003 according to the "Danish National Program for collection of fisheries data" of $31^{\text {st }}$ of May 2002, with modifications due to an accident for one of the crew members.

In the beginning of the second half of cruise, a crew member had a serious accident in connection with hauling the net. He was injured by a fall and broke his back and had to be evacuated by helicopter. After the accident the ship returned to Copenhagen were the part of the crew that have been involved in the rescue operation were offered emergency counseling. The Crew member that had the accident had severally damaged his vertebra, but are now almost recovered. The cruise was not resumed due to the delay caused by the accident and due to technical problems with the steering gear

The R/V DANA achieved 25 of 50 planed trawl stations.

## Discards:

Table 1-6 gives the tons of yearly estimated discard of the top most discarded species of commercial impotents by area.

Table 2. Discard amount (tons) of selected commercial important species in the North Sea in 2002. All gears except beam trawl.

| Blue |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Plaice | Haddock | Dab | Whiting | Cod | Sait | pout | Nephrops | whiting |
| 1671 | 1305 | 1140 | 720 | 610 | 563 | 422 | 318 | 144 |

Table 3. Discard amount (tons) of selected commercial important species in the North Sea and Skagerrak in 2002. Beam trawls only.

| Plaice | Dab | Whiting | Cod | Haddock | Sole |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 617 | 359 | 24 | 21 | 10 | 5 |

Table 4. Discard amount (tons) of selected commercial important species in the Skagerrak in 2002. All gears except beam trawl.

| Pan- |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Haddock | Plaice | Sait | Dab | Cod | Nephrops | whiting | Whiting | Norway pout | dalus |
| 3290 | 2155 | 1830 | 905 | 850 | 831 | 690 | 320 | 231 | 71 |

Table 5. Discard amount (tons) of selected commercial important species in the Kattegat in 2002. All gears.

| Plaice | Dab | Nephrops | Cod | Flounder | Haddock | Sole | Sait | Herring |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2040 | 1554 | 960 | 665 | 517 | 161 | 55 | 33 | 18 |

Table 6. Discard amount (tons) of selected commercial important species in the Western Baltic in 2002. All gears.

| Cod | Flounder | Plaice | Dab | Herring |
| :---: | :---: | :---: | :---: | :---: |
| 2577 | 1848 | 1515 | 514 | 6 |

Table 7. Discard amount (tons) of selected commercial important species in the Eastern Baltic in 2002. All gears.

| Flounder | Cod | Plaice | Sprat |
| :---: | :---: | :---: | :---: |
| 618 | 131 | 30 | 5 |

The top most discarded species (of commercial importance) in Denmark is plaice followed by cod and haddock (table 7). The Plaice are most frequently discarded in the demersal trawl fishery in all areas except eastern Baltic and in the Danish seine fishery in the western Baltic and Skagerrak. The cod is most frequently discarded in the demersal trawl fishery in all areas, in the Danish seine fishery in the western Baltic and Skagerrak and in the Nephrops fishery in Skagerrak and Kattegat. Haddock is mostly discarded in the in the North Sea and Skagerrak Nephrops fishery, the in the North Sea and Skagerrak demersal trawl fishery and in the in the North Sea and Skagerrak shrimp fishery.

# Addendum to the Danish Pilot Study report and the Technical report for 2003. 

Clarification on the questions asked in connection with the review on the pilot studies and the technical reports for 2003.

## Comments on the Pilot study: Recreational Fisheries for salmon.

To follow up on the question by SGRN on the size of the recreational fishery in relation to the commercial catch, the Danish commercial catch in 2002 was around 75.000 individuals and the recreational catch was of approximately 3000 individuals, so the recreational fishery account for $4 \%$ of the total catch of Salmon.

## Comments on the pilot study: Discards of commercial less important species (the non-app XII species) in the commercial fishery.

The missing of sampling levels in the report was commented by the SGRN. The reason for not giving the sampling levels is that the sampling intensity has been adjusted since the sampling was initiated in 1995. As explained in the report the sampling has been stratified in 32 fisheries (a combinations of area, target species and gear characteristics). To account for seasonal differences in discard patterns the sampling has further been stratified into quarters making the total numbers of strata 128. It has been impossible to achieve a good coverage of all strata in a single year. Estimated yearly discard is therefore based on discard rates which are averages from 1995 to 2002 and summed over quarters. The discard rates are raised with the individual yearly landing. The sampling level has been different between years, but the following number of trips has been included in the analysis. The trips are, due to difference in the fishing pattern, in general of longer duration in North Sea and Skagerrak (in average: 6.1 days in 2002) than in Kattegat and the Baltic Sea (in average: 1.5 days in 2002).

Number of discard trips in Kattegat:

| Demersal trawl | Gill net <br> Flatfish | Gill net <br> roundfish | Norway <br> lobster trawl | Shrimp <br> trawl | Danish seine |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 58 | 55 | 16 | 48 | - | 16 |

Number of discard trips in North Sea and Skagerrak

| Beam trawl |
| :---: |
| 13 |

Number of discard trips in the North Sea

| Demersal <br> trawl | Gill net <br> Hake | Gill net <br> turbot | Gill net <br> plaice | Gill net <br> sole | Gill net <br> cod | Norway <br> lobster <br> trawl | Shrimp <br> trawl | Danish <br> seine |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 58 | 1 | 8 | 20 | 11 | 37 | 5 | 14 | 14 |

Number of discard trips in Skagerrak

| Demersal trawl | Gill net flatfish | Gill net <br> roundfish | Norway <br> lobster trawl | Shrimp <br> trawl | Danish seine |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 34 | 17 | 6 | 16 | 10 | 23 |

Number of discard trips in the western part of the Baltic Sea

| Demersal trawl | Gill net | Gill net <br> lumpfish | Herring trawl | Danish seine |
| :---: | :---: | :---: | :---: | :---: |
| 259 | 123 | 7 | 9 | 10 |

Number of discard trips in the eastern part of the Baltic Sea

| Demersal trawl | Gill net | Gill net <br> lumpfish | Herring trawl | Danish seine |
| :--- | :--- | :---: | :---: | :---: |


| 113 | 37 | - | 7 | 1 |
| :--- | :--- | :--- | :--- | :--- |

## Coverage of fisheries:

The species of less commercial importance are caught in the same fisheries in which the commercial important species are caught. Therefore, the less commercial important species are included in the sampling of important commercial species. As the sampling scheme is optimized based on the important commercial species and there contribution to the total discard, the coverage of the non commercial species might be sub-optimal if significant discard of less important species is going on in fisheries which have no significant discard of important commercial species.

The mistakes in the tables showing the estimated yearly discard in 2002 by species and fishery and pointed out by the SGRN has been corrected and has been resubmitted to the commission in the beginning of august 2004. The corrected tables are attached as an appendix to this report. By accident, there was a mixup of species names in the tables initially submitted.

Comments to the tables.
In the North Sea the Norway pout and starry ray are the most common species discarded among the nonappendix IIX-species. Both species constitute each $7 \%$ (weight) of the total discard (all species) summed across all fisheries. The major discard of starry ray is seen in the demersal trawl fishery, the Danish seine fishery and the gillnet fishery targeting cod, turbot and plaice. Norway pout is normally only discarded in the shrimp fishery. Whiting is almost exclusively discarded in Nephrops fishery and the shrimp fishery. In Skagerrak only four non-appendix IIX-species are discarded with more than $0.5 \%$ in overall discard rate. These are blue whiting (2 percent), starry ray (2 percent), whiting (1 percent) and Norway pout (1 percent). Blue whiting is mostly discarded in the dermersal trawl fishery and the shrimp fishery. The starry ray is mostly discarded in dermersal trawl fishery and the Danish seine fishery. Whiting is discarded in the dermersal trawl fishery and the Norway lobster fishery. Norway pout is mostly discarded in the shrimp fishery.
In Kattegat only whiting and starry ray is discarded in significant amounts (8 and 2 percent overall). Both are mostly discarded in the dermersal trawl fishery.
In the Western Baltic whiting (2 percent overall) and turbot (1 percent overall) are discarded significantly among the non-appendix IIX-species. Both are predominantly discarded in the dermersal trawl fishery and the gillnet fishery targeting demersal flat fish and round fish species.
In the eastern Baltic only whiting (1 percent overall), turbot (2 percent overall) and sprat (1 percent overall) are discarded among the non-appendix IIX-species. They are all discarded in the dermersal trawl fishery.

## Comments to the Technical report 2003.

## Module E

Catches and landings: Precision level for the discard sampling has not been calculated based on the agreed methodology. The reason for not having applied the standard methodology is that the sampling protocol is not based on same sampling units as the agreed method. The Danish discard sampling is based on hauls, but not all hauls from a trip have been recorded. It has therefore been difficult to use the common method for calculating the precision level because the common method is based on the total trip discard and a raising factor based on the number of trips sampled in relation to the total number of trips within a fishery. We will now update the manual for discard sampling so that in future total landing and discard will be recorded so it will be possible to use the standard methodology and then be able to calculate precision levels for the discard sampling.

## Module H

Age and length sampling: For cod in ICES subarea IV only $81 \%$ of the 2118 length measurement where achieved. The reason for not having achieving all the length measurement planed, have been changes in the quota between 2001 and 2002. The planed and achieved figures were based on the landing in 2002 of 9000
tons. In 2003 the landing was reduced to 4.600 tons and as the sampling is constantly adjusted to the landed amounts and the fishery pattern and therefore a smaller number of samples have been taken. The sampling level have been set at one sample pr. 200 tons of 50 individuals and the resulting sample of 1167 individuals have to be sampled in 2003 . So the actual sample of 1715 length measurements is more than required by the regulation.

## Databases

Data from logbooks and data from sales notes on all first hand sales are stored in a Oracle database at the Danish Directorate of Fisheries together with the vessel database. These three databases are updated daily. Data from all three bases are jointed together into a data warehouse called DFAD, the Danish Fisheries Analytical Database. The join is preformed with software from the SAS institute and the result is available for the directorate as well as the Danish institute for food Economics and the Danish institute for fisheries research as SAS files. The DFAD is updated monthly. For secure transactions of data between the institutions an internet solution with SecurID from RSA Security Inc. has been implemented. From DFAD it is possible to extract data on fishing capacity, fishing effort and landings, divided into different levels of aggregation.

Biological data have been stored at DIFRES in an Ingress database on a UNIX system. The Ingress system is not being maintained any longer and the server platform at DIFRES has been shifted to MS Windows. Therefore a new database has been developed for MS SQL server. The plan was to implement the new database in 2002, but the time to develop the database has been seriously underestimated.

## Actions to be taken to avoid future non-compliance with the provisions of the Regulation identified in the 2003 Technical Report.

Concerning the provision of precision levels of the discard data, the sampling procedure will be adjusted in order to provide the necessary information to be able to apply the raising procedure suggested by the discard workshop in Charlottenlund (Workshop on Discard Sampling Methodology and Raising procedures, September, 2003). Precision levels will be calculated according to the guidelines given by the workshop and included in future Technical Reports.

Concerning the sampling level the sampling scheme will continue to be adjusted according to the fishing effort (landings) in the actual year and not just based on the previous year. This assure that change in quota, change in technical measurements or change in fishing pattern compared to the previous year do not course non-compliance with the provision of the regulations.

It is the intention in the future to develop pre-designed routine reports based on extractions from the national database. These reports will be able to give a complete overview of the sampling and will be included in future Technical Reports.

## APPENDIX

By a mistake some of the species names were mixed up in the following tables in the Danish Pilot Study Report 2003.

Below are shown the corrected tables

Table 3. Estimated yearly discard (in tons) in Kattegat by fishery in 2002.

| Species | Demersal <br> trawl | Gill net <br> flatfish | Gill net <br> round fish | Norway <br> lobster trawl | Shrimp <br> trawl | Danish <br> purse <br> seine | Grand <br> Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rays (other) | 0 | 0 | 0 | 0 |  | 0 | 0 |
| Blue Whiting |  |  |  | $<1$ |  |  | $<1$ |
| Sprat | $<1$ |  |  | $<1$ |  |  | $<1$ |
| Megrim | $<1$ |  |  | $<1$ |  |  | $<1$ |
| Angler fish | 0 | 0 | 0 | $<1$ |  | 0 | $<1$ |
| Horse <br> Mackerel | $<1$ | $<1$ |  | $<1$ |  |  | $<1$ |
| Whiting | 237 | 1 | 0 | 305 | 0 | $<1$ | 544 |
| Salmon | 0 | 0 |  |  |  |  | 0 |
| Mackerel | 0 | 0 | 0 | $<1$ |  |  | $<1$ |
| Turbot | 8 | 4 | 1 | 2 | 0 | 1 | 16 |
| Lemon sole | 16 | $<1$ | 0 | 29 | 0 | $<1$ | 46 |
| Herring | $<1$ | $<1$ | 0 | 16 |  | 0 | 17 |
| Brill | 6 | 2 | 0 | 5 | 0 | 2 | 15 |
| Norway pout | $<1$ |  |  | 3 |  |  | 3 |
| Thornback ray | 4 |  |  | $<1$ |  |  | 4 |
| Starry ray | 101 | 15 | 1 | 20 |  | $<1$ | 137 |
| Sea trout | 0 |  | 0 |  |  |  | 0 |
| Grand Total | 373 | 23 | 2 | 381 | 0 | 3 | 783 |

Table 4. Estimated yearly discard (in tons) in North sea and Skagerrrak in the beam trawl fishery in 2002.

| Species | Beam trawl | Grand Total |
| :--- | :---: | :---: |
| Rays (other) | 0 | 0 |
| Angler fish | $<1$ | $<1$ |
| Whiting | 12 | 12 |
| Mackerel | 0 | 0 |
| Turbot | 3 | 3 |
| Lemon sole | 5 | 5 |
| Herring | $<1$ | $<1$ |
| Brill | $<1$ | $<1$ |
| Greater <br> sandeel | $<1$ | $<1$ |
| Starry ray | 186 | 186 |
| Grand Total | 207 | 207 |

Table 5. Estimated yearly discard (in tons) in the North Sea by fishery in 2002.

| Species | Demersal <br> trawl | Gill <br> net | Gill <br> net | Gill <br> net | Gill net <br> sole | Gill <br> net | Norway <br> lobster | Shrimp <br> trawl | Danish <br> purse | Grand <br> Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


|  |  | for <br> hake | turbot | plaice |  | cod | trawl |  | seine |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rays <br> (other) | 10 |  | 0 | 0 | 0 | 0 | $<1$ | 0 | 0 | 11 |
| Blue <br> Whiting | 88 |  |  |  |  | $<1$ | 68 | 141 |  | 298 |
| Sprat |  |  |  |  |  |  |  |  | $<1$ | $<1$ |
| Sea bas |  |  |  |  |  |  | $<1$ |  |  | $<1$ |
| Angler fish | 35 | 0 | 5 | $<1$ | 0 | $<1$ | 3 | $<1$ | $<1$ | 43 |
| Horse <br> Mackerel | 27 |  | $<1$ | 2 | 1 | 3 | 78 | $<1$ | 5 | 116 |
| Whiting | 101 | 0 | $<1$ | 4 | 4 | $<1$ | 710 | 39 | 11 | 870 |
| Salmon | 0 | 0 |  | 0 |  |  |  |  |  | 0 |
| Mackerel | 27 | 0 | 20 | 1 | $<1$ | 1 | 4 | $<1$ | $<1$ | 53 |
| Turbot | 1 | 0 | 26 | 20 | $<1$ | $<1$ | 0 | 0 | $<1$ | 49 |
| Lemon sole | 3 | 0 | $<1$ | $<1$ | $<1$ | $<1$ | 1 | $<1$ | 1 | 6 |
| Herring | 2 |  |  | $<1$ | 0 | 0 | 0 | 5 | $<1$ | 8 |
| Brill | $<1$ | 0 | $<1$ | 4 | $<1$ | 0 | 0 | 0 | $<1$ | 5 |
| Norway <br> pout | 10 |  |  |  |  |  | 1 | 322 | $<1$ | 333 |
| Thornback <br> ray | $<1$ |  | $<1$ | $<1$ |  |  |  |  |  | $<$ |
| Greater <br> sandeel | $<1$ |  |  |  |  |  |  |  | $<1$ | $<1$ |
| Starry ray | 639 |  | 12 | 31 |  | 51 | 99 | $<1$ | 146 | 978 |
| Grand |  |  |  |  |  |  |  |  |  |  |
| Total | 945 | 0 | 63 | 63 | 7 | 56 | 964 | 509 | 165 | 2772 |

Table 6. Estimated yearly discard (in tons) in the Skagerrak by fishery in 2002.

| Species | Demersal trawl | Gill net flatfish | Gill net round fish | Norway lobster trawl | Shrimp trawl | Danish purse seine | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rays (other) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Blue Whiting | 447 |  |  | 47 | 278 |  | 772 |
| Sprat | <1 |  |  | <1 |  |  | <1 |
| Angler fish | 1 | <1 | 0 | <1 | <1 | <1 | 1 |
| Horse Mackerel | 4 | $<1$ |  | $<1$ | 1 | 3 | 8 |
| Whiting | 103 | <1 | <1 | 262 | 20 | 2 | 388 |
| Salmon | 0 | 0 | 0 |  |  |  | 0 |
| Mackerel | <1 | <1 | 0 | 0 | 0 | <1 | 1 |
| Turbot | 5 | <1 | <1 | 0 | 0 | 1 | 8 |
| Northern prawn | 12 |  |  | $<1$ | 93 |  | 106 |
| Lemon sole | 29 | 5 | 0 | 26 | <1 | 6 | 67 |
| Herring | 10 | 0 | 0 | 6 | 41 | <1 | 57 |
| Brill | 3 | <1 | 0 | 0 | 0 | 10 | 13 |
| Norway pout | 46 |  |  | 17 | 280 | <1 | 343 |
| Thornback ray |  |  |  |  | 1 |  | 1 |
| Sandeel | $<1$ |  |  |  |  |  | <1 |
| Greater sandeel | $<1$ |  |  |  |  |  | $<1$ |
| Lesser sandeel | $<1$ |  |  |  |  |  | $<1$ |


| Starry ray | 510 | 13 |  | 15 | $<1$ | 121 | 659 |
| :--- | :---: | :---: | ---: | ---: | ---: | ---: | :---: |
| Sea trout |  | 0 |  |  |  |  | 0 |
| Grand Total | 1171 | 19 | 1 | 375 | 715 | 145 | 2425 |

Table 7. Estimated yearly discard (in tons) in the western part of the Baltic Sea by fishery in 2002.

| Species | Demersal <br> trawl | Gill net | Gill net <br> lumpfish | Herring <br> trawl | Danish <br> purse seine | Grand <br> Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Rays (other) | 0 | 0 |  |  | 0 | 0 |
| Sprat | $<1$ |  |  | 0 | $<1$ | $<1$ |
| Horse <br> Mackerel | $<1$ |  |  |  |  | $<1$ |
| Whiting | 89 | 9 | 0 | 0 | $<1$ | 99 |
| Salmon | 0 | 0 |  | 0 | 0 | 0 |
| Mackerel | $<1$ | $<1$ |  |  | $<1$ | $<1$ |
| Turbot | 39 | 12 | $<1$ | 0 | 5 | 55 |
| Lemon sole | $<1$ | $<1$ | 0 |  | $<1$ | $<1$ |
| Herring | 5 | $<1$ | 0 | 0 | $<1$ | 5 |
| Brill | 1 | 4 | $<1$ |  | $<1$ | 6 |
| Lesser <br> sandeel | $<1$ |  |  |  |  | $<1$ |
| Sea trout | $<1$ | $<1$ |  | 0 |  | $<1$ |
| Grand Total | 134 | 25 | $<1$ | 0 | 6 | 165 |

Table 8. Estimated yearly discard (in tons) in the eastern part of the Baltic Sea by fishery in 2002.

| Species | Demersal <br> trawl | Gill net | Herring trawl | Danish purse <br> seine | Grand Total |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Sprat | $<1$ |  | 0 |  | $<1$ |
| Whiting | $<1$ | $<1$ | 0 | $<1$ | $<1$ |
| Salmon | $<1$ | 0 | 0 |  | $<1$ |
| Mackerel | $<1$ |  | 0 |  | $<1$ |
| Turbot | 2 | 0 |  | 0 | 2 |
| Lemon sole | 0 |  |  | $<1$ | $<1$ |
| Herring | $<1$ | $<1$ | 0 |  | $<1$ |
| Brill | 0 |  |  | $<1$ | $<1$ |
| Sea trout |  | 0 | 0 |  | 0 |
| Grand Total | 4 | $<1$ | 0 | $<1$ | 5 |

