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### COMMISSION REGULATION (EC) No 1639/2001

of 25 July 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) No 1543/2000

(OJ L 222, 17.8.2001, p. 53)

Amended by:

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### COMMISSION REGULATION (EC) No 1639/2001 of 25 July 2001

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No 1543/2000

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation (EC) No 1543/2000, of 29 June 2000 establishing a Community framework for the collection and management of the fisheries data needed to conduct the common fisheries policy (1), and in particular Articles 5(1) and 8(1) thereof,

#### Whereas:

- (1) Regulation (EC) No 1543/2000 establishes a Community framework for the collection and management of data needed to evaluate the situation of the fishery resources and the fisheries sector. To this end, it stipulates that Member States set up national programmes for the collection and management of fisheries data in accordance with Community programmes.
- (2) It is therefore necessary to establish a minimum Community programme covering the information strictly necessary for the scientific evaluations and to establish an extended Community programme which also includes information likely to improve in a decisive way the scientific evaluations.
- (3) The information required for each programme should be collected in the form of evaluation modules covering fishing capacities and fishing effort, catches and, finally, the economic situation of the sector
- (4) The Member States' programmes for the collection of data for scientific evaluations should be compatible with the collection of data for the management of other aspects of the common fisheries policy and with the collection of data pursuant to the Member States' obligations to the Community's statistical programme.
- (5) Rules relating to the transmission of, and access to, the data, including with regard to confidentiality, as well as rules relating to technical modifications and exemptions to the Community programmes, should be set out. Procedures related to the monitoring of the national programmes should also be established.
- (6) The measures provided for in this Regulation are in accordance with the opinion of the Management Committee for Fisheries and Aquaculture,

HAS ADOPTED THIS REGULATION:

### Article 1

### Subject matter

The minimum and the extended Community programmes referred to in Article 5(1) of Regulation (EC) No 1543/2000 are hereby established as set out in the Annex.

This Regulation also lays down certain detailed rules for the data to be collected under the Member States' national programmes.

#### Article 2

#### **Definitions**

For the purposes of this Regulation, the following definitions apply:

- 'segment' means a group of vessels as homogeneous as possible in terms of physical characteristics and of use of fishing gear resulting from a partition of the segments contained in the fourth multiannual guidance programme (MAGP IV);
- 'commercial fishing fleet' means vessels registered and licensed, according to Council Regulation No 3690/93 (¹) or otherwise authorised to fish for the purpose of commercial exploitation of fisheries; information on which Member States should provide to the Community's fishing vessel register under Commission Regulation No 2090/98 (²);
- 'recreational and game fisheries' means all fishing activities not conducted for commercial fishing purposes;
- 'primary data' means data associated to individual vessels, natural or legal persons or individual samples;
- 5. 'effective fishing power' means the estimation of the fishing power of vessels by a comparison of the catches made by those vessels;
- 'nominal fishing power' means the expression of the fishing power by a physical characteristic (engine power or tonnage) or by a combination of such characteristics;
- 'fishing effort' means, for a vessel, the product of its fishing power and of the duration of its fishing activity and for a group of vessels, the sum of the fishing efforts of all the vessels concerned;
- 8. 'type of technique' means the use of a specific fishing gear, or to the use of one or more fishing gear inside a group of gears;
- 9. 'space-time disaggregation' means the combination of a time period and of a geographical stratification into subareas;
- 'exhaustive sampling' means a study of a population in the statistical sense with regard to a parameter, if all the individuals constituting the aforementioned population are actually measured;
- 11. 'processing industry' means the industry involved in the preparation and preservation of fish, shellfish or molluscs as well as in the preparation of products containing fish, shellfish or molluscs;
- 12. 'sector of the processing industry' means a part of the processing industry based on the type of processing (frozen, salted/dried, smoked, canned, prepared dishes, others) and on channels according to the groups of species concerned (demersal and deepwater species, *Thunnidae*, pelagic species other than *Thunnidae*, other fish species, shellfish, cephalopods, bivalves, other molluscs, others);
- 13. 'aggregated data' means the aggregated data as defined in Article 2 (b) of Regulation (EC) No 1543/2000;
- 14. 'functional unit' means an operational grouping of statistical rectangles, corresponding to the area of distribution of a geographically isolated biological stock or assemblage of biological stocklets as set out in Appendix II;
- 15. 'catches' means the total live weight of fish initially caught i.e. gross catch;
- 'landings' means the live weight equivalent of the landings i.e. nominal catch;
- 17. 'discards' means the total live weight of undersized, not saleable, or otherwise undesirable fish, discarded at the time of capture or shortly afterwards.

<sup>(1)</sup> OJ L 341, 31.12.1993, p. 93.

<sup>(2)</sup> OJ L 266, 1.10.1998, p. 27.

#### Article 3

#### Requirements for the national programmes

The national programmes set up by the Member States taking into account the Community programmes set out in the Annex shall comprise in particular:

- (a) the links with the Community programmes, specifying the planned actions by section and by reference to the programme;
- (b) the elements of analytical accounts distributed by section and by programme as well as by geographical area as set out in Appendix I, level 2;

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(c) in the event of sampling, a detailed description of the strategies followed and the statistical estimates used making it possible to appreciate the levels of precision and relationship between the cost and precision; this description shall also include estimates of levels of precision of the estimated parameter; these estimates shall be included in the final report, in a format established by the Commission, after having consulted the STECF;

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 (d) the elements making it possible to demonstrate cooperation and task-sharing between Member States;

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(e) in the event of sampling, the procedures set within the national programmes shall ensure the collection of the required data by duly appointed observers and the acceptance on board and cooperation with such observers by masters of fishing vessels, in accordance with Article 22(1)(d) of Council Regulation (EC) No 2371/2002 (1).

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### Article 4

#### Submission of the national programmes

Each Member State shall submit to the Commission, by 31 May of each year at the latest, by electronic means, its national programme referred to in Article 6 of Regulation (EC) No 1543/2000.

### Article 5

#### Transmission of data to international organisations

- 1. Data referred to in this Regulation may be transmitted by the Member States to the relevant international organisations in accordance with the specific rules and regulatory provisions of these organisations.
- 2. Member States shall inform the Commission of the transmission of the information referred to in paragraph 1 and provide the Commission with a computerised copy upon request.

#### Article 6

### Coordination between Commision and Member States

1. The Commission shall examine the national programmes and check that the conditions provided for in this regulation are observed.

If the examination by the Commission of a national programme should reveal that it does not meet those conditions, the Commission shall immediately inform the Member State concerned and propose amendments to that programme. Subsequently the Member State concerned may submit a revised national programme.

- 2. Member States shall submit, by 31 May 2003 at the latest and by the 31 May following each year of application of the programme thereafter, a technical report of activity detailing the state of completion of the aims set at the time of the drawing-up of the minimum programme and of the extended programme.
- 3. Each Member State shall designate the relevant authority in charge of the implementation of this regulation, hereinafter referred to as 'national correspondent'.
- 4. Each Member State shall communicate by 31 May 2001 at the latest the particulars of its national correspondent to the Commission and to the other Member States.
- 5. The national correspondent shall inform the Commission regularly of the state of progress of the national programmes.

#### Article 7

#### Non-compliance with Community programmes

If the Commission considers that the obligations set out in the modules of the Community programmes are not respected by a Member State and that the Member State concerned received Community financial assistance for these modules, it shall inform the Member State concerned which shall carry out an administrative enquiry.

The Member State shall inform the Commission of the progress and of the findings of this enquiry and send it without delay a copy of the report drawn up following the inquiry, notifying the main elements on which it is based.

The Commission may decide to reclaim any sum unduly paid, with interest for the period in question.

#### Article 8

#### Technical modifications and exemptions

- 1. The Commission may authorise the modifications of surveys referred to in the Annex, section G(1)(iii) on the basis of advice of the Scientific, Technical and Economic Committee for Fisheries (hereinafter referred to as STECF).
- 2. The Commission may, upon advice of the STECF and in accordance with the procedure referred to in Article 9(2) of Regulation (EC) No 1543/2000, decide on exemptions from the obligations set out in the Annex, sections H and I.

#### Article 9

### Management of primary and aggregated data

- 1. Member States shall take all necessary measures so that primary data collected under this regulation are dealt with in a confidential way.
- 2. The primary data shall be kept for the necessary time in order to carry out any relevant task and at least for five years.
- 3. Each Member State shall ensure that the aggregated data pertaining to the Community programmes are incorporated into computerised databases accessible by electronic means to the Commission and the national correspondents according to Articles 10 and 11.
- 4. Aggregated data referred to in paragraph 3, may not include any evidence which could make it possible to identify individual vessels, natural or legal persons.
- 5. Member States shall guarantee the safety of the data processing on their respective computer systems, in particular when the treatment requires transmission by network.
- 6. Member States shall take all the necessary technical measures to protect data against any accidental or illicit destruction, accidental loss,

deterioration, distribution or unauthorised consultation and against any unsuitable form of treatment.

#### Article 10

#### Access to data by the Commission

- 1. If the Commission wishes to use aggregated data collected pursuant to this Regulation, it shall specify to the Member States concerned the data in question.
- 2. Member States shall take the necessary measures to enable the remote consultation of the data in question or their duplication within a period of time not exceeding 20 working days.
- 3. If a Member State is not in a position to satisfy the request for access made by the Commission, it must immediately inform the Commission and give reasons.
- 4. When a computer file has been set up by the Commission from the data of the Member States, this file may not be kept for more than 20 working days following the date for which the information was requested and must therefore be destroyed except when explicit written agreement of the Member States concerned has been obtained.

#### Article 11

#### Access to data by Member States

- 1. Member States shall take the measures necessary to facilitate access by the national correspondents of the other Member States, to the computerised database containing the aggregated data.
- 2. Member States shall communicate to the Commission and to other Member States the reasons which justify a suspension of access to data covered by this Regulation.
- 3. If a national correspondent wishes to have access to data held by another Member State, it shall send a request to the national correspondent responsible for access to this data. That national correspondent shall reply to the request within 10 working days following that request and must give reasons for any refusal.
- 4. Member States may conclude agreements or agree upon IT protocols relating to computer access in order to facilitate access to the databases. They shall inform the Commission without delay thereof. The expenses generated by access to the databases shall be borne by the national correspondent requesting it.

### Article 12

#### Confidentiality

The members of the STECF and participants of meetings that it organises are not permitted to make a copy of part or all of the data for use outside of the meeting.

#### Article 13

#### Entry into force

This Regulation shall enter into force on the seventh day following its publication in the *Official Journal of the European Communities*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

#### ANNEX

#### CHAPTER I

#### CONTENTS AND METHODOLOGY

#### A. Contents of the Community programmes

- 1. The minimum Community programme referred to in Article 5(1) of Regulation (EC) No 1543/2000 comprises the following modules:
  - (a) module of evaluation of inputs: fishing capacities and fishing effort;
  - (b) module of evaluation and of sampling of the catches and landings;
  - (c) module of evaluation of the economic situation of the sector.
- The extended Community programme referred to in Article 5(1) of Regulation (EC) No 1543/2000 comprises the modules referred to in point 1 as well as additional information which is specified for each module.
- 3. For each module the parameters to be monitored, the disaggregation levels and the precision levels to be attained are specified for the minimum programme. For the extended programmes for which the precision levels are not fixed, each Member State must indicate in its national programme the precision levels it is aiming at, and the cost-precision relationship associated to the estimation procedures which will be used.

#### B. Precision levels and sampling intensities

- 1. When it is not possible to define quantitative targets for sampling programmes, neither in terms of precision levels, nor in terms of sample size, pilot surveys in the statistical sense will be established. Such pilot surveys must evaluate the importance of the problem and should also address the utility of more detailed surveys later on, and the cost-effectiveness relationship of such detailed surveys.
- When quantitative targets can be defined, they can be specified either directly by sample sizes or sampling rates, or by the definition of the levels of precision and of confidence to be achieved.
- 3. When reference is made to a sample size or to a sampling rate in a population defined in statistical terms, the sampling strategies must be at least as efficient as simple random sampling. Such sampling strategies must be described within the corresponding national programmes.
- 4. When reference is made to precision/confidence level, the following distinction is established:
  - (a) level 1: level making it possible to estimate a parameter with precision of plus or minus 25 % for a 95 % confidence level;
  - (b) level 2: level making it possible to estimate a parameter with precision of plus or minus 10 % for a 95 % confidence level;
  - (c) level 3: level making it possible to estimate a parameter with precision of plus or minus 5 % for a 95 % confidence level.

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5. With regard to the data collection of stocks subject to a recovery plan pursuant to a Council Regulation, sampling requirements for the extended programme shall become mandatory under the minimum programme for the year following the Regulation's adoption and during the applicable period of the recovery plan. The same shall apply to surveys where the main objective stock is subject to a recovery plan.

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#### CHAPTER II

## MODULE OF EVALUATION OF INPUTS: FISHING CAPACITIES AND FISHING EFFORT

#### C. Collection of data concerning fishing capacities

1. For the minimum programme, data must be collected in order to assess, for each segment as defined later, the number of vessels that are attached to it and the average value per vessel of the parameters defined in point (a).

#### (a) Parameters:

the data collected must include all fishing vessels covered by multiannual guidance programme (MAGP) IV:

- the tonnage (gross tonnage),
- the maximum continuous engine power actually developed by the main engine, after derating if appropriate, expressed in kW as defined in Council Regulation (EC) No 2930/86 (¹),
- the age of the vessel calculated on the basis of the age of the hull.

#### (b) Disaggregation levels:

- data must be gathered in a way which makes it possible to individualise the segments defined in Appendix III,
- data must be updated annually.

#### (c) Precision levels:

data arising from Regulation (EC) No 2090/98 must be gathered exhaustively. For the other types of data mentioned in point (1)(a), sampling programmes can be drawn up to allow estimates attaining level 3 precision as defined in section B.

#### 2. Extended programme

- (a) Complementary parameters include:
  - the maximum continuous power of the main engine before derating,
  - the maximum overall power of the auxiliary engine(s) used for hoists and winches for the vessels with an overall length of more than 12 meters,
  - the characteristics of a standard fishing gear associated with each fishing technique, including the dimensions and the insured value of this standard gear,
  - the average number per vessel of the fishing gears associated with the various types of fishing techniques.

#### (b) Disaggregation levels:

- segments to be considered are defined in Appendix IV,
- types of fishing techniques to be considered are also defined in Appendix IV.

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

- 1. At the minimum programme level, data must be collected in the following way:
  - (a) Parameters:
    - (i) fuel consumption (2);
    - (ii) fishing efforts by type of technique: they are measured by the weighted sum of the fishing days associated with an area and with a specific period:
      - each day is weighted by a measuring unit related to the nominal fishing power of each vessel; these units being defined in Appendix V,
      - a day at sea is regarded as a calendar day of fishing if at least one fishing operation has been carried out by a fishing vessel on that day, or if a passive fishing gear has been left at sea during this day,
      - each day is attributed to the area where the first fishing operation took place within this day. However, for passive gears, if no operation took place from the vessel within a day while at least one (passive) gear remained at sea, this day will be associated to the area where the last setting of a fishing gear was carried out on that fishing trip;

<sup>(1)</sup> OJ L 274, 25.9.1986, p. 1.

<sup>(2)</sup> The data are considered as part of the economic evaluation collected as Chapter IV.

- (iii) specific fishing efforts: they are associated with stocks of special interest. They are defined as effort by technique, but the only days to be taken into account are those where the catches kept on board of the stocks mentioned in Appendix VI exceed the thresholds referred to in that Appendix.
  - for specific stocks additional measuring units apart from those defined in Appendix V, may be used on condition that they comply with the specifications established by the regional fisheries organisations involved in the assessment of these stocks.

#### (b) Disaggregation levels:

- as regards fuel consumption, data expressed in volume and cost must be gathered in a way which makes it possible to estimate the average fuel consumption per vessel within each segment as defined in Appendix III, on an annual basis (¹);
- (ii) for fishing effort by technique, data must be collected by types of techniques defined in Appendix VIII, on a quarterly basis and, according to level 3 of geographical disaggregation defined in Appendix I;
  - In addition to the overall effort, the contribution of each segment defined in Appendix III shall be individualised (effort by technique and by segment) (1);
- (iii) at the level of specific fishing efforts, data will be collected as for efforts by technique: by separating types of fishing techniques specified in Appendix VIII, on a quarterly basis, and according to level 3 of geographical disaggregation defined in Appendix I.

#### (c) Precision levels:

the data corresponding to the provisions of Commission Regulation (EEC) No 2807/83 (²) (defining the special procedures of recording of information concerning fish landings by the Member States) must be collected in an exhaustive way. When other data are necessary, they are collected according to sampling procedures making it possible to reach for the estimated averages by segment, the level of precision 2 for data concerning fuel consumption, the level of precision 2 for fishing effort by technique, the level of precision 1 for specific fishing effort. Pilot surveys may be conducted for fishing effort of passive gears.

#### 2. Extended programme

#### (a) Complementary parameters:

for the efforts by technique and specific efforts referred to in point 1 (a)(ii) and (iii):

- other measuring units than those defined in Appendix V, can be used on condition that they are detailed and justified in the national programmes,
- stocks and/or thresholds other than those defined in Appendix VI can be taken into consideration to define specific effort,
- in addition, for fishing gear other than traps, pots and pond nets, fishing efforts could be measured by operation. In such cases, basic units will refer to fishing operations and not to fishing days. Each operation will correspond to a contribution to the thus defined fishing effort by following the rules defined in Appendix IX. Other rules than those indicated in that Appendix could also be used in as far as they are fully described and justified,
- data on fishing effort of traps, pots and pond nets can be collected as number of gears at sea, multiplied by time (number of days of each gear at sea on an annual basis).

### (b) Disaggregation levels:

(i) fuel consumption data can be gathered in a way which makes it
possible to estimate the average fuel consumption per vessel
within each segment defined in Appendix IV, on a quarterly basis;

<sup>(1)</sup> The data are considered as part of the economic evaluation collected as Chapter IV.

<sup>(2)</sup> OJ L 276, 10.10.1983, p. 1.

- (ii) as regards to the fishing effort by technique and the specific fishing effort:
  - effort data can be individualised according to the types of fishing techniques referred to in Appendix X; more detailed typology can be used as long as the usefulness is described and justified in the national programme,
  - effort data by segment can be gathered with reference to the segments defined in Appendix IV,
  - effort data can be gathered on a monthly basis, and referring to the level of geographical disaggregation 4 of Appendix I; for the stocks mentioned in Appendix VII specific effort data can be gathered by separating the ranges of depth specified in that Appendix.

#### CHAPTER III

#### MODULE OF EVALUATION OF THE CATCHES AND LANDINGS

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

- 1. At the minimum programme level, data must be gathered in the following
  - (a) Parameters:
    - data collection must make it possible to assess:
      - commercial landings for all stocks, and
      - for stocks mentioned in Appendix XII, total catches, landings and discards, and
      - catches from recreational and game fisheries in marine waters for stocks mentioned in Appendix XI,
    - each Member State must describe the conversion factors it has applied.
  - (b) Disaggregation levels:
    - for each Member State, an estimate of overall annual commercial landings will be provided by species, distinguishing the geographical origin of the catches according to level 2 of geographical disaggregation of Appendix I. However, if grouping of several species is considered to be more appropriate, Member States can obtain a derogation from the Commission, provided this is fully justified,
    - for the stocks mentioned in Appendix XII, commercial landings will be disaggregated as indicated in that Appendix,
    - landings by weight and value of each segment identified in Appendix III must be individualised by species, by quarter and, as regards the geographical origin of the catches, at the level of geographical disaggregation 2 according to Appendix I (1),
    - discards will be monitored for the stocks in Appendix XII in order to estimate the average volume of the annual catches by weight per three-year period, by type of technique defined in Appendix III, except for the stocks for which Appendix XII specifies another disaggregation rule,
    - a pilot survey, as defined in section B, needs to be implemented for recreational and game fisheries mentioned in Appendix XI, taking into account the disaggregation level specified within the same Appendix.
  - (c) Precision level:
    - the assessment of commercial landings must be made on the basis of the exhaustive data gathered under Council Regulation (EEC) No 2847/93 (2) and on the basis of Council Regulation (EC) No 104/2000 (3) and for the data not covered by these Regulations by sampling and statistical procedures, in such a way that the

<sup>(</sup>¹) The data are considered as part of the economic evaluation collected as Chapter IV. (²) OJ L 261, 20.10.1993, p. 1.

<sup>(3)</sup> OJ L 17, 21.1.2000, p. 22.

- estimates achieve a precision of level 3 for stocks subject to TAC and quota regulations, level 2 for stocks not subject to TACs and quotas listed within Appendix XII, and level 1 for the other cases,
- data related to annual estimates of discards for stocks mentioned in Appendix XII must lead to a precision of level 1. However, if Member States can not reach this level of precision or only at excessive costs, they can obtain a derogation from the Commission to reduce the precision level, sampling frequency or to implement a pilot survey provided this request is fully documented,
- discards related to other stocks than those for which Appendix XII states a yearly estimate must be covered by pilot surveys. The conclusions of these studies must be forwarded to the Commission by 31 October 2003 at the latest,
- catches from recreational and game fisheries mentioned in Appendix XI must be subject to pilot surveys. The conclusions of these surveys must be forwarded to the Commission by 31 October 2003 at the latest.
- (d) In accordance with the provisions of Regulation (EEC) No 2847/93, Member States shall take necessary measures to ensure the registration of all relevant data according to Article 9 of that Regulation.

In addition, Member States will, when appropriate, cooperate with other Member States to obtain comprehensive data covering the landings of vessels flying their flag.

#### 2. Extended programme

- (a) Complementary parameters:
  - landings from stocks mentioned in Appendix XIII,
  - catches from game and recreational fisheries for stocks other than those mentioned in Appendix XI,
  - for salmon, the catches taken in estuaries, lakes and rivers in the geographical area of the Baltic Sea and the North Sea.

#### (b) Disaggregation level:

- data concerning the commercial landings of the stocks mentioned in Appendix XII can be disaggregated in accordance with the provisions defined in that Appendix for the extended programme. Complementary geographical stratification, according to depth or another criterion, can be made, in as far as this stratification is consistent with section D, point (2)(b)(ii), third indent, and that the corresponding national programme justifies its usefulness,
- data concerning the stocks mentioned in Appendix XIII can be collected on a quarterly basis, by separating the catches according to the types of techniques defined in Appendix III, and by the geographical level 3 areas according to Appendix I. For stocks mentioned in Appendix VII, data can be further separated according to the ranges of depth defined in that Appendix,
- catch data can be collected by segment as defined in Appendix IV or Appendix X,
- discards data can be collected under the extended programme:
  - on a quarterly basis, by type of technique according to Appendix III and according to the geographical level 3 of Appendix I, for the stocks where Appendix XII mentions an annual evaluation of discards within the minimum programme,
  - on an annual basis, with possible separation of the types of fishing technique according to Appendix III, without geographical disaggregation, for the stocks where Appendix XII does not require an annual estimate of discards within the minimum programme,
  - on an annual basis, with no other disaggregation for the stocks mentioned in Appendix XIII.

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

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- At the minimum programme level, data shall only contain data series for catches and effort for:
  - fleets which have been used at any time from 1995 onwards in stock assessments, either analytical and/or production models,
  - stocks where there is no stock assessment and where CPUE data series were the only way to estimate trends in the stocks abundance at any time from 1995 onwards.
  - fisheries for which there are regional fisheries organisation (hereinafter referred to as RFO) obligations.

Stock definitions shall correspond with the ones defined by RFOs, and the sampling strategies shall include, as a minimum, the corresponding strata.

Member States shall provide a thorough description of the way in which the abundance index for each stock has been calculated.

- 2. At the extended programme level, data series for catches and effort for:
  - fleets which have not yet been used in stock assessments but where stock assessments are expected to be conducted in the future e.g. in the Mediterranean area and for deep-sea resources,
  - fleets where data collection started in recent years and until these data series are used in stock assessments (such data series may be transferred to the minimum programmes only if they are used in the stock assessment procedures),
  - fleets for which CPUE data series are collected but the data are presently only used for biological purposes (length and age composition, maturity data).

Stock definitions should follow the ones defined by RFOs, and the sampling strategies shall include, as a minimum, the respective strata.

Member States shall provide a thorough description of the way in which the abundance index for each stock has been calculated.

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

- 1. Minimum programme level:
  - All surveys mentioned by Appendix XIV with priority 1, must be covered;
  - (ii) Member States must guarantee within their national programmes continuity with previous survey designs;
  - (iii) Notwithstanding points (i) and (ii), Member States may propose a modification in the survey effort or sampling design, provided that this will not negatively affect the quality of the results.
- 2. At the extended programme level all surveys indicated with priority 2 in Appendix XIV are eligible.

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

 At the minimum programme level, data must be collected in the following way.

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### (a) Parameters:

Biological sampling must be performed in order to evaluate the composition in length and, where appropriate, in age of the landings for all the stocks specified as mandatory in Appendix XV.

- (b) Disaggregation and precision levels:
  - (i) for stocks under recovery plans Member States shall apply a sampling strategy, achieving a precision level 2 for the length and, where appropriate, age composition of landings;
  - (ii) for other stocks Member States shall apply a sampling strategy, achieving a precision level 1 for the length and, where appropriate, age composition of landings.

However, if this approach cannot be achieved, Member States may apply an alternative methodology for which the required disaggregation levels are specified in Appendix XV.

#### V 1VI.

(c) Sampling programme implementation:

the Member State on whose territory landings take place are responsible for installing sampling programmes according to the standards defined in this article. If necessary, Member States will cooperate with the authorities of third countries to set up the biological sampling of the landings carried out by vessels flying these third countries flag.

In accordance with Regulation (EEC) No 2847/93, each Member State takes the necessary measures to ensure the gathering of all data concerning the activities of the vessels which fly its flag whatever their places of landings.

- (d) Exemptions concerning the sampling rules:
  - lengths:
    - (1) the national programme of a Member State can exclude the estimation of the length distribution of the landings for stocks for which TACs and quotas have been defined under the following conditions:
      - the relevant quotas must correspond to less than 5 % of the Community share of the TAC or to less than 100 tonnes on average during the previous three years;
      - (ii) the sum of all quotas of Member States whose allocation is less than 5 %, must account for less than 15 % of the Community share of the TAC.

If the condition set out in point (i) is fulfilled, but not the condition set out in point (ii), the relevant Member States may set up a coordinated programme to achieve for their overall landings the implementation of the sampling scheme described in Appendix XV, or another sampling scheme, leading to the same precision.

If appropriate, the national programme may be adjusted until 31 January of every year to take into account the exchange of quotas between Member States;

(2) for stocks for which TACs and quotas have not been defined and outside the Mediterranean area, the same rules apply on the basis of the average landings of the previous three years and with reference to the total Community landings from a stock;

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(3) for the stocks in the Mediterranean area, the landings by weight of a Mediterranean Member State for a species corresponding to less than 10 % of the total EU landings of that species, taken in the Mediterranean area, or to less than 200 tonnes, are exempted. This derogation shall not apply for blue fin tuna:

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#### - ages:

- (1) the national programme of a Member State can exclude the estimation of the age distribution of the landings for stocks for which TACs and quotas have been defined under the following conditions:
  - (i) the relevant quotas correspond to less than 10 % of the Community share of the TAC or to less than 200 tonnes on average during the previous three years;
  - (ii) the sum of all quotas of Member States whose allocation is less than 10 %, accounts for less than 25 % of the Community share of the TAC.

If the condition set out in point (i) is fulfilled, but not the condition set out in point (ii), the relevant Member States may set up a coordinated programme to achieve for their overall landings the implementation of the sampling scheme described in Appendix XV, or another sampling scheme, leading to the same precision.

If appropriate, the national programme may be adjusted adjusted until 31 January of every year to take into account the exchange of quotas between Member States;

**▼**B

(2) for stocks for which TACs and quotas have not been defined and outside the Mediterranean area, the same rules apply on the basis of the average landings of the previous three years and with reference to the total Community landings from a stock:

**▼**M1

(3) for the stocks in the Mediterranean area, the landings by weight of a Mediterranean Member State for a species corresponding to less than 10 % of the total EU landings of that species, taken in the Mediterranean area, or to less than 200 tonnes, are exempted. This derogation shall not apply to blue fin tuna:

**▼**B

(4) Whenever possible, age-reading should be performed on commercial catches. If this is not the case, Member States should specify it within their national programme.

#### - Others:

if cooperation between Member States guarantees that the overall estimate of the parameters under point (a) reach the necessary precision level, each concerned Member State is not held individually to guarantee that its own data are enough to reach this precision level.

#### **▼**<u>M1</u>

#### (e) Discards

Discards shall be the subject of an annual estimation of the distribution of the lengths by type of fishing technique when:

- discard data is used in stock assessment working groups,
- discards represent either more than 10 % of the total catches by weight, or more than 20 % of the catches in numbers for the stocks for which yearly discard data must be collected, as specified in Appendix XII.

The sampling intensities are those as defined in Appendix XV for commercial landings.

When discards take place for length ranges which are not represented in the landings, age-reading shall take place in accordance with the rules set out in Appendix XV.

However, if Member States cannot reach this level of precision or only at excessive cost, they may obtain a derogation from the Commission provided that this request is fully documented.

**▼**B

#### (f) Recreational and game fisheries

For the stocks specified in Appendix XI, Member States must set up pilot surveys consistent with the level of disaggregation defined in that Appendix. These surveys must make it possible to establish the levels of precision required for the future. The conclusions of these surveys must be forwarded to the Commission by 31 October 2003 at the latest.

### **▼**M1

#### 2. Extended programme:

(a) Complementary parameters:

Biological sampling shall be performed in order to evaluate the composition in length and, where appropriate, in age of the landings for all the stocks specified as optional in Appendix XV.

(b) Disaggregation and precision levels:

Member States shall apply a sampling strategy, achieving a precision level 1 for the length and, where appropriate, age composition of landings.

However, if this approach cannot be achieved, Member States may apply an alternative methodology for which the required disaggregation levels are specified in Appendix XV.

#### (c) Discards:

#### **▼**M1

The sampling programme for the estimation of the annual composition in lengths of the discards for optional stocks specified in Appendix XV

#### **▼**B

#### I. Other biological samplings

(1) At the minimum programme level, data must be collected in the following way.

#### (a) Parameters

- (i) The growth curves by length and by weight, the relations between age/length and maturity, and the relation between age/ length and fecundity must be provided for all stocks mentioned in Appendix XVI, including for those not subject to an annual estimation of the age composition of the catches.
- (ii) Biological sampling programmes of the landings must be implemented to estimate the share of the various stocks in these landings for: herring in the Skagerrak, Kattegat, and eastern North Sea separately, wild and reared salmon in the Baltic Sea, the various species of skates and rays in areas IV and VIId.
- (iii) Member States should perform their sampling scheme for sex ratio from their commercial catches. However, in cases in which this task is impossible, samples obtained during scientific surveys may be used.

#### (b) Disaggregation level

For parameters referred to in point (a)(i):

- definitions are provided by stock according to the periodicity defined in Appendix XVI. The validity of existing data used for biological parameters estimation must be checked every three to six years as defined in Appendix XVI. Member States must update these parameters if needed,
- for the Norway lobster (Nephrops), Greenland halibut, deep sea shrimps (Pandalus borealis), plaice, sole and hake, the growth curves and maturity ogives are established separately for males and for females.

For parameters referred to in point (a)(ii):

data should be provided quarterly and following the fishing techniques typology described in Appendix IV.

### (c) Precision levels

- (i) For growth curves:
  - for stocks for which ages of individual fish can be read, average weights and lengths for each age must be estimated with a precision of level 3, up to an age such that cumulated landings for the corresponding ages account for at least 95 % of the national landings for the relevant stock,
  - for stocks for which age reading is not possible, but for which a growth curve can be estimated, average weights and lengths for each age must be estimated with a precision of level 2, up to an age such that cumulated landings for the corresponding ages account for at least 90 % of the national landings, for the relevant stock.
- (ii) For maturity, fecundity and sex ratios, a choice can be made between reference to age or length, provided that Members States which have to conduct the corresponding biological sampling have agreed the following:
  - for maturity and fecundity, precision of level 3 must be achieved within the age and/or length range, the limits of which correspond to a 20 % and 90 % of mature fish,
  - for sex ratio, precision of level 3 must be achieved, up to and age or length such that cumulated landings for the corresponding ages or lengths account for at least 95 % of the national landings for this stock.
- (iii) Stocks and species compositions of the catches referred to in point (a)(ii) must be estimated with level 1 precision.

#### A 1A11

#### (d) Exemptions

- (1) The national programme of a Member State can exclude the estimation of the biological parameters for stocks for which TACs and quotas have been defined under the following conditions:
  - (i) the relevant quotas correspond to less than 10 % of the Community share of the TAC or to less than 200 tonnes on average during the previous three years;
  - (ii) the sum of all quotas of Member States whose allocation is less than 5 %, accounts for less than 20 % of the Community share of the TAC.

If appropriate, the national programme can be adjusted until 1 February of every year to take into account the exchange of quotas between Member States.

(2) For stocks for which TACs and quotas have not been defined, the same rules apply on the basis of the average landings of the previous three years and with reference to the total Community landings.

If cooperation between the Member States guarantees that the overall estimates of all parameters set out in point (a)(i) reach the necessary precision levels, a Member State concerned is not held individually to guarantee that its own data is enough to reach this precision level.

#### 2. At the extended programme level

#### Complementary parameters:

- for the stocks mentioned in Appendix XVI, an annual updating and discrimination by sex will be eligible,
- for stocks not mentioned in Appendix XVI, but mentioned in Appendix XV and for which length data have been collected, growth, maturity and sex ratio data will be eligible every three years,
- the growth and maturity curves for the species mentioned in Appendix XIII are eligible, but the updating of the data will not be performed more frequently than every three years,
- for the groups of species mentioned in Appendix XII or XIII, sampling programmes of the catches to establish the species composition will be eligible every three years.

#### CHAPTER IV

# MODULE OF EVALUATION OF THE ECONOMIC SITUATION OF THE SECTOR

#### J. Collection of economic data by groups of vessels

 At the minimum programme level, data must be gathered in the following way.

#### (a) Parameters:

- data must be collected to cover all the parameters mentioned in Appendix XVII according to the segmentation set out in Appendix III.
- investment must be measured in order to estimate the overall value of assets, including the capital value of the leased equipment. Insured values must be preferred. If the collection of the insured value proves too difficult, the replacement value of the vessel can be gathered by default. In such a case, the need for this substitution must be shown in the national programme,
- within production costs, labour costs must cover all expenditures paid by employers, including social security, health insurance, retirements and other related taxes.

#### (b) Disaggregation levels:

- each parameter is estimated for each group of vessels as defined in Appendix III,
- in accordance with the specifications of Annex IV of Regulation (EC) No 1543/2000, data concerning prices are gathered on an

annual basis, while distinguishing for the fleets performing in the Mediterranean the catches coming from the various geographical areas mentioned in Appendix I, level 3.

#### (c) Precision levels:

for each parameter and for each segment, level 1 precision must be achieved.

#### 2. Extended programme level

#### (a) Complementary parameters:

the extended programme covers all the data defined in Appendix XVIII.

### (b) Disaggregation levels:

the partition of the groups of vessels referred to in point (1)(a), first indent, may be carried up to the level defined in Appendix IV and regarding the regional differentiation of level 2 of Appendix I.

#### K. Collection of data concerning the processing industry

#### 1. At the minimum programme level

Member States should conduct pilot surveys in order to assess the annual value per sector of the parameters listed in Appendix XIX; these pilot surveys must compare the cost-efficiency relationship of different data collection strategies, including sampling schemes. The conclusions of these surveys must be forwarded to the Commission by 31 October 2003 at the latest.

#### 2. Extended programme level

#### (a) Complementary parameters

Activities of collecting and managing the data shall make it possible:

- (i) to appreciate the overall sensitivity of the sector and/or of the companies located in the coastal regions (nomenclature of territorial units for statistical purposes, NUTS 3) with respect to the catches from the stocks subject to TACs and quotas and/or affected by other measures connected with the conservation of fishery resources, or with respect to the catches from outside of Community waters;
- (ii) to assess the impact, including the social and the economic impact, on the processing industry of measures taken on behalf of the CFP such as measures envisaged by Council Regulation (EEC) No 3759/92 (¹), Council Regulation (EC) No 2792/ 1999 (²), and specific measures adopted for the fisheries and aquaculture sector of the most remote regions (programme of options specific to remoteness and to insularity, POSEI).

#### (b) Disaggregation levels

The analysis of the companies of the sector may take into account the establishment of these companies in various regions, coastal or not, at the NUTS 3 level.

<sup>(1)</sup> OJ L 388, 31.12.1992, p. 1.

<sup>(2)</sup> OJ L 337, 30.12.1999, p. 10.

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secondary industry (sectors) (MP)

Appendix I

Geographic stratification by regional fisheries organisations

_	_		_		_
Other	FAO Area		FAO Subarea	Division $5^{\circ} \times 5^{\circ}$	Rectangle $1^{\circ} \times 1^{\circ}$
OTOI	FAO Area		FAO Subarea	Division $5^{\circ} \times 5^{\circ}$	Rectangle $1^{\circ} \times 1^{\circ}$
CCAMLR	Area	e.g. 48	Subarea e.g. 48.1 Antarctic peninsula	Division $5^{\circ} \times 5^{\circ}$	Rectangle $1^{\circ} \times 1^{\circ}$
GFCM	Area	e.g. 37 Mediterranean and Black sea	Subarea e.g. 37.1 Westem	Division e.g. 37.1.2 Gulf of Lions	Subdivision
ICCAT	FAO Area		FAO Subarea	Division $5^{\circ} \times 5^{\circ}$	Rectangle $1^{\circ} \times 1^{\circ}$
NAFO	Area		Subarea e.g. 21.2 Labrador	Division e.g. 21.2 H	Rectangle
ICES	Area		Subarea e.g. IV North Sea	Division e.g. IVc	Rectangle $30' \times 1^{\circ}$
	Level 1		Level 2	Level 3	Level 4

Appendix II

Functional units (FUs) and statistical rectangles (Nephrop norvegicus)

FU No	Name	ICES area	Statistical rectangles
3	Skagerrak	IIIa	47G0-G1; 46F9-G1; 45F8-G1; 44F7-G0; 43F8-F9
4	Kattegat	IIIa	44G1-G2; 42-43G0-G2; 41G1-G2
5	Botney Gut — Silver Pit	IVb, c	36-37 F1-F4; 35F2-F3
6	Farn Deeps	IVb	38-40 E8-E9; 37E9
7	Fladen Ground	IVa	44-49 E9-F1; 45-46E8
8	Firth of Forth	IVb	40-41E7; 41E6
9	Moray Firth	IVa	44-45 E6-E7; 44E8
10	Noup	IVa	47E6
11	North Minch	VIa	44-46 E3-E4
12	South Minch	VIa	41-43 E2-E4
13	Clyde	VIa	39-40 E4-E5
14	Irish Sea East	VIIa	35-38E6; 38E5
15	Irish Sea West	VIIa	36E3; 35-37 E4-E5; 38E4
16	Porcupine Bank	VIIc, k	31-36 D5-D6; 32-35 D7-D8
17	Aran Grounds	VIIb	34-35 D9-E0
18	Ireland NW coast	VIIb	37D9-E1; 36D9
19	Ireland SW and SE coast	VIIg, j	31-33 D9-E0; 31E1; 32E1-E2; 33E2-E3
20	NW Labadie, Baltimore and Galley	VIIg, j	
21	Jones and Cockburn	VIIg, h, j	28-30 E1; 28-31 E2; 30-32 E3; 31 E4
22	Smalls	VIIg	
23	Bay of Biscay North	VIIIa	22-24 E6-E7; 23-24E5
24	Bay of Biscay South	VIIIb	20-21 E7-E8; 19E8
25	North Galicia	VIIIc	15E0-E1; 16E1
26	West Galicia	IXa	13-14 E0-E1
27	North Portugal (N of Cape Espichel)	IXa	6-12E0; 9-12E1
28	South-West Portugal (Alentejo)	IXa	3-5 E0-E1
29	South Portugal (Algarve)	IXa	2E0-E2
30	Gulf of Cadiz	IXa	2-3 E2-E3

#### **▼**M1

FU No	Name	ICES area	Statistical rectangles
31	Cantabrian Sea	VIIIc	16E4-E7
32	Norwegian Deep	IVa	44-52 F2-F6; 43F5-F7
33	Off Horn Reef	IVb	39-41E4; 39-41E5

Appendix III (section C)

Basic segmentation of vessels for capacities (MP)

	Vessel length	< 12 m	12 ≤ 24 m	24 ≤ 40 m	≥ 40 m
T	Type of fishing technique				
Mobile gears	Beam trawl				
	Demersal trawl and demersal seiner				
	Pelagic trawl and seiners				
	Dredges				
	Polyvalent				
	Others (to be specified)				
Passive gears	Gears using hooks				
	Drift and fixed nets				
	Pots and traps	(-)			
	Polyvalent				
	Others (to be specified)				
Polyvalent gears	Combining mobile and passive gears				
Vessels with no licence					

(¹) This segment is aggregated for all passive gears.

Note 1: If a gear category contains less than 10 vessels, then the cell can be merged with a neighbouring length category to be specified in the national programme.

Note 2: If a vessel spends more than 50 % of its time using a specific type of fishing technique, it should be included in the corresponding segment. Note 3: Length is defined as length over all (LOA).

Appendix IV (section C)

Detailed disaggregation of vessels for capacities (EP)

		}	,		•		•	
	Vessel length		< 10 m	10 ≤ 12 m	12 ≤ 18 m	18 ≤ 24 m	24 ≤ 40 m	≥ 40 m
	Type of fishing technique							
Mobile gears	Beam trawl	North Sea ≤ 221 kW						
		North Sea > 221 kW						
		Outside North Sea						
	Demersal trawl and demersal seine	Bottom trawl						
		Danish and Scottish seiners						
		Polyvalent						
	Pelagic trawl and seiners	Pelagic trawl						
		Pelagic seiner and purse seiner						
		Polyvalent						
	Dredges	es						
	Polyvalent mobile gears	bile gears						
	Others (to be specified)	specified)						
Passive gears	Gears using hooks	Long-lines						
		Other gears using hooks						
	Drift nets and fixed nets	fixed nets						
	Pots and traps	traps						
	Polyvalent passive gears	sive gears						
	Others (to be specified)	specified)						
Polyvalent gears	Combining mobile and passive gears	nd passive gears						
Vessels with no licence								

### Appendix V (section D)

### Fishing capacity units by type of fishing technique

Fishing technique	Fishing capacity units
Towed gears	kW and GT
Static gears	kW and GT
Polyvalent vessels	kW and GT

### Appendix VI (section D)

### Stocks related to specific effort

Species and area	Threshold 1 (a)	Threshold 2 (b)
Salmon (Baltic Sea)	30 %	5 %
Cod (all areas, except Mediterranean)	30 %	5 %
Haddock (all areas, except Mediterranean)	30 %	5 %
Saithe (all areas, except Mediterranean)	30 %	5 %
Whiting (all areas, except Mediterranean)	30 %	5 %
Plaice (all areas, except Mediterranean)	30 %	5 %
Sole (all areas, except Mediterranean)	10 %	5 %
Sole (Mediterranean)	30 %	5 %
Nephrops (all areas)	30 %	5 %
Hake (all areas)	30 %	5 %
Anchovy (all areas)	30 %	5 %
Sardine (all areas)	50 %	5 %
Mackerel (all areas, except Mediterranean)	50 %	10 %
Horse mackerel (all areas, except Mediterranean)	50 %	10 %
Swordfish (all areas)	30 %	5 %
Bluefin tuna (all areas)	30 %	5 %
Bigeye tuna (all areas)	30 %	5 %
Albacore (all areas)	30 %	5 %
Yellow-fin tuna (all areas)	30 %	5 %
Herring (all areas, except Mediterranean)	50 %	10 %
Sprat (all areas, except Mediterranean)	50 %	10 %
Sand eel (all areas, except Mediterranean)	70 %	
Norway pout (all areas, except Mediterranean)	70 %	
European eel (all areas)	30 %	

<sup>(</sup>a) A fishing day is to be considered as targeting one specific species, if the percentage of this species in total daily catch is higher than threshold 1.

<sup>(</sup>b) A fishing day is to be considered as affecting significantly a species, if the percentage of the particular species is higher than threshold 2.

### Appendix VII (section D)

### Target species and depths (EP)

Stock	Area	Threshold
Cod	NAFO	30 %
Grenadiers	All areas	30 %
Greenland halibut	All areas	30 %
Redfish	All areas	30 %
Pandalus spp.	All areas	30 %
Pagelus bogaraveo	ICES	30 %
Aphanopus carbo	ICES	30 %
Argentina silus	ICES	30 %
Beryx spp.	ICES	30 %
Coryphaenoides rupestris	ICES	30 %
Hoplostethus atlanticus	ICES	30 %
Molva dypterygia	ICES	30 %
Molva molva	ICES	30 %

### Appendix VIII (section D)

### Intermediate typology for effort information (MP)

	Types of fishing technique	es	
Mobile gears	Beam trawl	North Sea < 221 kW	
		North Sea ≥ = 221 kW	
		Outside North Sea	
	Demersal trawl and demersal seine	Bottom trawl	
		Danish and Scottish seiners	
		Total	
	Pelagic trawl and seiners	Pelagic trawl	
		Pelagic seiner and purse seiner	
		Total	
	Dredges		
	Total mobile gears		
Passive gears	Gears using hooks	Longlines	
		Other gears using hooks	
	Drift and fixed nets		
	Pots and traps		
	Total		
Grand total	<u>'</u>		

### Appendix IX (section D)

### Definition of fishing effort in relation to fishing operation (EP)

Gear type	Variable
Trawls	Duration of haul × kW
Purse seiners	Number of sets
Nets	Number of nets × length × time at sea
Longlines	Number of hooks × time at sea
Pots, traps and pound nets	Numbers × annual time at sea

#### Appendix X (section D)

#### Detailed typology of fishing techniques (EP)

- I. Mobile gears
  - (a) Beam trawl
    - 1. Engine power < 221 kW for vessels operating in North Sea
      - (i) mesh size: < 32 mm, 80 109 mm,  $\ge 110$  mm
    - 2. Engine power ≥ 221 kW for vessels operating in North Sea
      - (i) mesh size: 80 109 mm,  $\geq 110$  mm
    - 3. Beam trawlers operating outside the North Sea
      - (i) mesh size: < 32 mm, 80 − 109 mm, ≥ 110 mm
  - (b) Demersal trawl and demersal seine
    - 1. Bottom trawl
      - (i) single trawl, paired trawl, twin trawl, other multirig trawl, fourpanels trawl, high-opening trawl
      - (ii) mesh size: < 32 mm, 32 54 mm, 55 69 mm, 70 79 mm, 80 109 mm,  $\ge$  110 mm
      - (iii) (i) and (ii) may be combined
    - 2. Danish seiners
      - (i) mesh size: < 32 mm, 32 54 mm, 55 69 mm, 70 79 mm, 80 109 mm,  $\ge 110$  mm
    - 3. Scottish seiners
      - (i) mesh size: < 32 mm, 32 54 mm, 55 69 mm, 70 79 mm, 80 109 mm,  $\ge$  110 mm
  - (c) Pelagic trawl and seiners
    - 1. Pelagic trawl
      - (i) single trawler, paired trawlers
      - (ii) mesh size: trawl: < 32 mm, 32 − 54 mm, 55 − 69 mm, 70 − 79 mm, 80 − 109 mm, ≥ 110 mm (Atlantic and North Sea); < 32 mm, 32 − 90 mm, 91 − 105 mm, 106 − 119 mm, ≥ 120 mm (Baltic Sea); 14 − 49 mm, 50 − 99 mm, 100 − 119 mm, ≥ 120 mm (Mediterranean)
    - 2. Pelagic seiner and purse seiner
      - (i) with fish aggregating devices (FAD)
      - (ii) without FAD
  - (d) Dredges
    - (i) hydraulic dredge
    - (ii) Other dredges
- II. Passive gears
  - (a) Fixed gears and lines
    - 1. Fixed nets
      - (i) trammel nets
      - (ii) entangling nets
      - (iii) gill nets

- (iv) subdivision by mesh size, also permitted: 10-99 mm, 100-119 mm,  $\geq 120$  mm (Atlantic and North Sea); <105 mm, 105-119 mm,  $\geq 120$  mm (Baltic Sea)
- 2. Longlines
  - (i) surface longlines
  - (ii) bottom longlines
  - (iii) mid-waterlines
- 3. Other gear using hooks
  - (i) troll line
  - (ii) pole line with live bait
  - (iii) pole line without live bait
- (b) Drift nets
  - (i) mesh sizes for the Baltic:  $\leq$  30 mm,  $\geq$  150 mm
  - (ii) mesh sizes for the Mediterranean:  $\leq 150$  mm, 151-299 mm,  $\geq 300$  mm
- (c) Pots and traps
  - (i) fish traps, including trap nets and pound nets
  - (ii) crustaceans pots with possible subdivision by target species.

### Appendix XI (section E)

### List of recreational fisheries stocks (MP)

- 1. Salmon (marine waters in the Baltic Sea and North Sea):
  - Catch figures collected in weight and number by:
  - geographical area as defined in Appendix 1, level 2.
- 2. Bluefin tuna (all areas):
  - Catch figures collected in weight and number by:
  - annual basis,
  - geographical area as defined in Appendix 1, level 2,
  - distinguishing catch of fish below and above 10 kg.
- 3. Cod in areas III, IV, V, VI and VII:

Catch figures collected in weight by:

— geographical area as defined in Appendix 1, level 2.

The conclusions of these surveys must be forwarded to the Commission by  $31\,\mathrm{March}\ 2007.$ 

### Appendix XII (section E)

### List of stocks for landings and discards monitoring (MP)

#### LEGEND:

Catch and landings monitoring: within the market or sea-sampling programme the stratification of sampling is prioritised at the total or fleet level, with monthly, quarterly or annual sampling schemes, with data reported by rectangle, division or area

Fishing technique stratification:

M	Monthly by type of fishing technique (Appendix III)
N	Monthly total
Q	Quarterly by type of fishing technique (Appendix III)
R	Quarterly total
Y	Yearly by type of fishing technique (Appendix III)
Z	Yearly total
T	Triannual (one yearly over a period of three years) by type of technique (Appendix III)

### Geographical stratification:

0	Functional unit
1	ICES Statistical rectangle
2	ICES/NAFO divisions
3	ICES/NAFO subareas
4	ICCAT 1° rectangle
5	ICCAT 5° rectangle
6	FAO division
7	FAO subarea
8	FAO area

### Important remarks:

- 1. Stock definitions should follow those defined by regional fisheries organisations, and the sampling strategies should include at least the respective strata.
- Data concerning areas separated by commas may be aggregated, while data concerning areas separated by slashes must not be aggregated.

Species		Area/Stock	Sampling Strata		Discards	
		Area/Stock	MP	EP	MP	
		ICES areas I, II				
Glass eel	Anguilla anguilla	I, II	Q2	M1		
Yellow eel	Anguilla anguilla	I, II	Q2	M1		
Silver eel	Anguilla anguilla	I, II	Q2	M1		
Atlanto-scandian herring	Clupea harengus	IIa, V	Q2	M2	Y	
Cod	Gadus morhua	I, II	Q2	M2	Y	
Haddock	Melanogrammus aeglefinus	I, II	Q2	M2	Y	
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV	Q2	M1	Т	
Northern shrimp	Pandalus borealis	I, II	Y2	Q2	Т	
Saithe	Pollachius virens	I, II	Q2	M2	Y	
Redfish	Sebastes spp.	I, II	Y3	Q2	Т	
Horse mackerel	Trachurus trachurus	IIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIabde	Q2	M1	Т	
	North Sea (Sk	agerrak) — ICES area IIIa (nort	h)	!	!	
Sand eel	Ammodytidae	IIIa N	Q2	M1	Т	
Glass eel	Anguilla anguilla	IIIa N	Q2	M1		
Yellow eel	Anguilla anguilla	IIIa N	Q2	M1		
Silver eel	Anguilla anguilla	IIIa N	Q2	M1		
Herring	Clupea harengus	IV, VIId, IIIa/22-24, IIIa	Q2	M1	Y	
Cod	Gadus morhua	IV, VIId, IIIa	Q2	M2	Y	
Haddock	Melanogrammus aeglefinus	IV, IIIa	Q2	M1	Y	
Hake	Merluccius merluccius	IIIa, IV, VI, VII, VIIIab	Q2	M1	Y	
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV	Q2	M1	Т	
Norway lobster	Nephrops norvegicus	Functional unit	Q0	M0	Y	
Northern shrimp	Pandalus borealis	IIIa, IVa east	R2	Q1	Т	
Plaice	Pleuronectes platessa	IIIa	Q2	M1	Y	
Saithe	Pollachius virens	IV, IIIa, VI	Q2	M1	Y	
Mackerel	Scomber scombrus	IIIa, IVbc, VIId	Q2	M1	Т	
Sole	Solea solea	IIIa	R2	Q1	Y	

Species		Area/Stock	Sampling Strata		Discards	
		Area/Stock	MP	EP	MP	
Sprat	Sprattus sprattus	IIIa	Q2	M1	T	
Norway pout	Trisopterus esmarki	IV, IIIa	Q2	M1	Т	
	ICES area III (e	excluding Skagerrak), including Ba	altic			
Glass eel	Anguilla anguilla	All areas	Q2	M1		
Yellow eel	Anguilla anguilla	All areas	Q2	M1		
Silver eel	Anguilla anguilla	All areas	Q2	M1		
Herring	Clupea harengus	22-24/25-29, 32/30/31/Gulf of Riga	Q2	M1	Т	
Cod	Gadus morhua	IIIa S/22-24, 3d/25-32	Q2	M2	Y	
Hake	Merluccius merluccius	IIIa, IV, VI, VII, VIIIab	Q2	M1	Y	
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV	Q2	M1	Т	
Norway lobster	Nephrops norvegicus	Functional unit	Q0	M0	Y	
Flounder	Platichthys flesus	IIIa-d	Q2	M1	Т	
Plaice	Pleuronectes platessa	IIIa	Q2	M1	Y	
Salmon	Salmo salar	IIIb-d, 22-31/32	R2	Q1	Т	
Sea trout	Salmo trutta	IIIb-d	R2	Q2	Т	
Sole	Solea solea	IIIa	R2	Q1	Y	
Sprat	Sprattus sprattus	IIIa S/IIIb-d	Q2	M1	Т	
	North Sea and ea	stern Channel — ICES areas IV,	VIId	•	1	
Sand eel	Ammodytidae	IV	Q1	M1	Т	
Glass eel	Anguilla anguilla	IV, VIId	Q2	M1		
Yellow eel	Anguilla anguilla	IV, VIId	Q2	M1		
Silver eel	Anguilla anguilla	IV, VIId	Q2	M1		
Argentine	Argentina spp.	IV	Z2	R2	Т	
Herring	Clupea harengus	IV, VIId, IIIa	Q2	M1	Y	
Shrimp	Crangon crangon	IV, VIId	Q1	M1	Т	
Seabass	Dicentrarchus labrax	IV, VIId	Y3	Q3	Т	
Cod	Gadus morhua	IV, VIId, IIIa	Q2	M1	Y	
Four-spot megrim	Lepidorhombus boscii	IV, VIId	Y2	Q2	Т	

Species		Area/Stock	Sampling Strata		Discards
Species		Area/Stock	MP	EP	MP
Megrim	Lepidorhombus whiffiagonis	IV, VIId	Y2	Q2	Т
Black-bellied angler	Lophius budegassa	IV, VIId	Y2	Q2	Т
Anglerfish	Lophius piscatorius	IV, VI	Y2	Q2	Т
Haddock	Melanogrammus aeglefinus	IV, IIIa	Q2	M1	Y
Whiting	Merlangius merlangus	IV, VIId	Q2	M1	Y
Hake	Merluccius merluccius	IIIa, IV, VI, VII, VIIIab	Q2	M2	Y
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV	Q2	M1	Т
Lemon sole	Microstomus kitt	IV, VIId	Z2	R2	Т
Red mullet	Mullus barbatus	IV, VIId	Z2	Q2	Т
Striped red mullet	Mullus surmuletus	IV, VIId	Z2	Q2	Т
Norway lobster	Nephrops norvegicus	Functional unit	Q0	M0	Y
Northern shrimp	Pandalus borealis	IIIa, IVa east/IVa	R2	Q1	Т
Plaice	Pleuronectes platessa	IV/VIId	Q2	M1	Y
Saithe	Pollachius virens	IV, IIIa, VI	Q2	M1	Y
Turbot	Psetta maxima	IV, VIId	Q2	M1	Т
Thornback ray	Raja clavata	IV, VIId	Z2	R2	Т
Starry ray	Raja radiata	IV, VIId	Z2	R2	Т
Cuckoo ray	Raja naevus	IV, VIId	Z2	R2	Т
Spotted ray	Raja montagui	IV, VIId	Z2	R2	Т
Other rays and skates	Rajidae	IV, VIId	Z2	R2	Т
Mackerel	Scomber scombrus	IIIa, IVbc, VIId	Q2	M1	Т
Brill	Scopthalmus rhombus	IV, VIId	Q2	M1	Т
Sole	Solea solea	IV/VIId	Q2	M1	Y
Sprat	Sprattus sprattus	IV	Q1	M1	Т
Horse mackerel	Trachurus spp.	IIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIabde/IIIa, IVbc, VIId	Z2	R2	Т
Norway pout	Trisopterus esmarki	IV	Q1	M1	Y
NE Atlantic	and western Channel -	— ICES V, VI, VII (excluding d),	VIII, IX, X	x, XII, XIV	•
Glass eel	Anguilla anguilla	all areas	Q2	M1	

		Area/Stock	Sampling Strata		Discards
Species			MP	EP	MP
Yellow eel	Anguilla anguilla	all areas	Q2	M1	
Silver eel	Anguilla anguilla	all areas	Q2	M1	
Scabbardfish	Aphanopus spp.	IXa, X	Q2	Q3	Т
Argentine	Argentina spp.	all areas	Z2	R2	Т
Alfonsinos	Beryx spp.	X	R2	Q2	Т
Crab	Cancer pagurus	all areas	Z2	Y2	Т
Gulper shark	Centrophorus granulosus	all areas	Y2	M4	Т
Leafscale gulper shark	Centrophorus squamosus	all areas	Y2	M4	Т
Portuguese dogfish	Centroscymnus coelolepis	all areas	Y2	M4	Т
Herring	Clupea harengus	VIa/VIa N/VIaS, VIIbc/VIIa/ VIIj	Q2	M1	Y
Conger	Conger conger	X	R2	Q2	Т
Roundnose grenadier	Coryphaenoides rupestris	all areas	Y2	Q2	Т
Seabass	Dicentrarchus labrax	all areas excluding IX	Y2	Q2	Т
Anchovy	Engraulis encrasi- colus	VIII	Q2	M1	Т
Anchovy	Engraulis encrasi- colus	IXa (only Cadiz)	Q2	M2	Т
Cod	Gadus morhua	Vb, VI, XII, XIV	Y2	Q2	Y
Cod	Gadus morhua	Va/Vb/VIa/VIb/VIIa/VIIb-k/VIII	Q2	M2	Т
Blue mouth rockfish	Helicolenus dacty- lopterus	IXa, X	Q2	M2	Т
Lobsters	Homarus gammarus	all areas	Z2	Y2	Т
Orange roughy	Hoplostethus atlanticus	all areas	Z2	Y2	Т
Four-spot megrim	Lepidorhombus boscii	VIIIc, IXa	Q2	M2	Т
Megrim	Lepidorhombus whiffiagonis	VI/VII, VIIIabd	Q2	M2	Y
Megrim	Lepidorhombus whiffiagonis	VIIIc, IXa	Q2	M2	Т
Common squid	Loligo vulgaris	VIIIc, IXa	Y2	Q2	Т
Black-bellied angler	Lophius budegassa	IV, VI/VIIe-k, VIIIabd/VIIIc, IXa	Q2	M2	Т

Species		A /G, 1	Sampli	ng Strata	Discard
		Area/Stock	MP	EP	MP
Anglerfish	Lophius piscatorius	IV, VI/VIIb-k, VIIIabd/VIIIc, IXa	Q2	M2	Т
Haddock	Melanogrammus aeglefinus	Va/Vb, VI, XII, XIV	Y2	Q2	Y
Haddock	Melanogrammus aeglefinus	VIa/VIb/VIIa/VIIb-k	Q2	M2	Y
Whiting	Merlangius merlangus	Vb/VIa/VIb/VIIa/VIIe-k	Q2	M2	Y
Whiting	Merlangius merlangus	VIII/IX, X	Y2	Q2	Т
Hake	Merluccius merluccius	IIIa, IV, VI, VII, VIIIab/VIIIc, IXa	Q2	M2	Y
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV	Q2	M1	Т
Blue ling	Molva dypterygia	X	R2	Q2	Т
Ling	Molva molva	all areas	Y2	Q2	Т
Striped red mullet	Mullus surmuletus	all areas	Z2	Y2	Т
Norway lobster	Nephrops norvegicus	Functional unit	Q0	M0	Y
Common octopus	Octopus vulgaris	VIIIc, IXa	Y2	Q2	Т
White shrimp	Parapenaeus long- irostris	IXa	Y2	Q2	Т
Forkbeard	Phycis phycis	X	Q2	M2	Т
Plaice	Pleuronectes platessa	VIIa/VIIe/VIIfg	Q2	M2	Y
Saithe	Pollachius virens	Va/Vb/IV, IIIa, VI	Q2	M2	Т
Saithe	Pollachius virens	VII, VIII, IX, X	Y2	Q2	Т
Wreckfish	Polyprion americanus	X	Y2	Q2	Т
Blond ray	Raja brachyura	all areas	Y2	Q2	Т
Thornback ray	Raja clavata	all areas	Y2	Q2	Т
Spotted ray	Raja montagui	all areas	Y2	Q2	Т
Cuckoo ray	Raja naevus	all areas	Y2	Q2	Т
Other rays and skates	Rajidae	all areas	Y2	Q2	Т
Greenland halibut	Reinhardtius hippo- glossoides	V, VI, XII, XIV	Y2	Q2	Т
Sardine	Sardina pilchardus	VIIIabd/VIIIc, IXa	Q2	M1	Т
Spanish mackerel	Scomber japonicus	VIII, IX	Y2	R2	Т

9		A (G) 1	Samplin	ng Strata	Discard
Species		Area/Stock	MP	EP	MP
Mackerel	Scomber scombrus	II, IIIa, IV, V, VI, VII, VIII, IX/ VIIIc, IXa	Q2	M1	Т
Redfish	Sebastes spp.	V, VI, XII, XIV	Q2	M2	Т
Cuttlefish	Sepia officinalis	VIIIc, IXa	Y2	Q2	Т
Sole	Solea solea	VIIa/VIIe/VIIfg/VIIIab	Q2	M2	Т
Sole	Solea solea	VIIbc/VIIhk/IXa	Y2	Q2	Т
Sea bream	Sparidae	VIIIc, IXa, X	Y2	Q2	Т
Blue jackmackerel	Trachurus picturatus	X	Q2	M2	Т
Horse mackerel	Trachurus trachurus	IIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIabde/VIIIc, IXa/X	Q2	M1	Т
Pouting	Trisopterus luscus	VIIIc, IXa	Y2	Q2	Т
		Mediterranean			
Glass eel	Anguilla anguilla	all areas	Q2	M1	
Yellow eel	Anguilla anguilla	all areas	Q2	M1	
Silver eel	Anguilla anguilla	all areas	Q2	M1	
Giant red shrimp	Aristeomorpha foliacea	1.3, 2.2, 3.1	Q6	M6	Т
Red shrimp	Aristeus antennatus	1.1, 1.3, 2.2, 3.1	Q6	M6	Т
Bogue	Boops boops	1.3, 2.1, 2.2, 3.1	Y6	Q6	Т
Dolphinfish	Coryphaena hippurus	all areas	Y6	Q6	
Dolphinfish	Coryphaena equiselis	all areas	Z6	R6	
Seabass	Dicentrarchus labrax	1, 2	Y6	Q6	Т
Horned octopus	Eledone cirrosa	all areas	Y6	Q6	Т
Musky octopus	Eledone moschata	all areas	Y6	Q6	Т
Anchovy	Engraulis encrasi- colus	all areas	Q6	M6	Т
Grey gurnard	Eutrigla gurnardus	1.3, 2.2, 3.1	Y6	Q6	Т
Squid	Illex spp., Todarodes spp.	1.3, 2.1, 2.2, 3.1	Q6	М6	Т
Billfish	Istiophoridae	all areas	Q5	Q4	Т
Common squid	Loligo vulgaris	1.3, 2.2, 3.1	Y6	Q6	Т
Black-bellied anglerfish	Lophius budegassa	1.1, 1.3, 2.2, 3.1	Q6	M6	Т
Anglerfish	Lophius piscatorius	1.1, 1.3, 2.2, 3.1	Q6	M6	Т

# $\sqrt[m]{M1}$

Species		A === /C4= =1-	Samplir	Discards		
Sp	ectes	Area/Stock	MP EP		MP	
Hake	Merluccius merluccius	all areas	Q6	M6	Т	
Grey mullet	Mugilidae	1.3, 2.1, 2.2, 3.1	Q6	M6	Т	
Red mullet	Mullus barbatus	all areas	Q6	M6	Т	
Striped red mullet	Mullus surmuletus	all areas	Q6	M6	Т	
Norway lobster	Nephrops norvegicus	1.3, 2.1, 2.2, 3.1	Q6	M6	Т	
Common octopus	Octopus vulgaris	all areas	Q6	M6	Т	
Pandora	Pagellus erythrinus	1.1, 1.2, 2.1, 2.2, 3.1	Y6	Q6	Т	
White shrimp	Parapenaeus long- irostris	1.1, 1.3, 2.2, 3.1	Q6	M6	Т	
Caramote prawn	Penaeus kerathurus	3.1	Y6	Q6	Т	
Thornback ray	Raja clavata	1.3, 2.1, 2.2, 3.1	Y6	Q6	Т	
Brown ray	Raja miraletus	1.3, 2.1, 2.2, 3.1	Y6	Q6	Т	
Atlantic bonito	Sarda sarda	all areas	Q5	Q4	Т	
Sardine	Sardina pilchardus	all areas	Q6	M6	Т	
Mackerel	Scomber spp.	1.3, 2.2, 3.1	Y6	Q6	Т	
Sharks	Shark-like Selachii	all areas	Q5	Q4	Т	
Cuttlefish	Sepia officinalis	1.3, 2.1, 3.1	Q6	M6	Т	
Sole	Solea vulgaris	1.2, 2.1, 3.1	Y6	Q6	Т	
Gilthead sea bream	Sparus aurata	1.2, 3.1	Y6	Q6	Т	
Picarels	Spicara spp.	1.3, 2.1, 2.2, 3.1	Y6	Q6	Т	
Mantis shrimp	Squilla mantis	1.3, 2.1, 2.2	Q6	M6	Т	
Albacore	Thunnus alalunga	all areas	Q5	Q4	Т	
Bluefin tuna	Thunnus thynnus	all areas	Q5	Q4	Т	
Mediterranean horse mackerel	Trachurus mediter- raneus	1.1, 1.3, 3.1	Y6	Q6	Т	
Horse mackerel	Trachurus trachurus	1.1, 1.3, 3.1	Y6	Q6	Т	
Tub gurnard	Trigla lucerna	1.3, 2.2, 3.1	Y6	Q6	Т	
Clam	Veneridae	2.1, 2.2	Q6	M6	Т	
Swordfish	Xiphias gladius	all areas	Q5	Q4	Т	
	•	NAFO areas	,			
Cod	Gadus morhua	2J3KL	Y2	Q2	Y	
Cod	Gadus morhua	3M	Y2	Q2	Y	
	I.	<u> </u>	1	1	1	

Species		A /C4 1	Sampling Strata		Discards
Spe	ecies	Area/Stock	MP	EP	MP
Cod	Gadus morhua	3NO	Y2	Q2	Y
Cod	Gadus morhua	3Ps	Y2	Q2	Т
Cod	Gadus morhua	SA 1	Y2	Q2	Y
Witch flounder	Glyptocephalus cynoglossus	3NO	Y2	Q2	Т
American plaice	Hippoglossoides platessoides	3LNO	Y2	Q2	Т
American plaice	Hippoglossoides platessoides	3M	Y2	Q2	Т
Yellowtail flounder	Limanda ferruginea	3LNO	Y2	Q2	Т
Grenadiers	Macrouridae	SA 2 + 3	Y2	Q2	Т
Pandalus shrimp	Pandalus spp.	3M	Q2	M2	Y
Skates	Raja spp.	SA 3	Y2	Q2	Т
Greenland halibut	Reinhardtius hippo- glossoides	3KLMNO	Y2	Q2	Y
Greenland halibut	Reinhardtius hippo- glossoides	SA 1	Y2	Q2	Т
Redfish	Sebastes spp.	3M	Y2	Q2	Y
Redfish	Sebastes spp.	3LN	Y2	Q2	Y
Redfish	Sebastes spp.	30	Y2	Q2	Y
Redfish	Sebastes spp.	SA 1	Y2	Q2	Y
	Highly migratory	species, Atlantic, Indian, Pacific C	ceans		
Frigate tuna	Auxis spp.		Y	M4	Y
Atlantic back skipjack	Euthynnus alleteratus		Y	M4	Y
Billfish	Istiophoridae		Y	M4	Y
Short fin mako	Isurus oxyrinchus		Y	M4	Т
Skipjack tuna	Katsuwonus pelamis		M5	M4	Т
Porbeagle	Lamna nasus		Y	M4	Т
Blue shark	Prionace glauca		Y	M4	Т
Atlantic bonito	Sarda sarda		Y	M4	Y
Sharks	Squalidae		Y	M4	Y
Albacore	Thunnus alalunga		M5	M4	Т
Yellowfin tuna	Thunnus albacares		M5	M4	Y
Bigeye tuna	Thunnus obesus		M5	M4	Y

Species		A /G. 1	Sampli	ng Strata	Discard	
		Area/Stock	MP	EP	MF	
Bluefin tuna	Thunnus thynnus		M5	M4	Т	
Swordfish	Xiphias gladius		M5	M4	Т	
		CECAF FAO 34	<b>'</b>			
Black scabbardfish	Aphanopus carbo	Madeira	Q2	M2	Т	
Hake	Merluccius spp.	Atlantic EC	Q6	M6	Т	
Common octopus	Octopus vulgaris	Atlantic EC	Q4	M4	Т	
Deepwater rose shrimp	Parapeneus longir- ostris	Atlantic EC	Q2	M2	Т	
Southern pink shrimp	Penaeus notialis	Atlantic EC	Q3	M3	Т	
Sardine	Sardina pilchardus	Atlantic EC	Q5	M5	Т	
Mackerel	Scomber japonicus	Madeira	Q2	M2	Т	
Horse mackerel	Trachurus spp.	Madeira	Q2	M2	Т	
		WECAF				
Red snapper	Lutjanus purpureus	French Guiana EEZ	Y6	Q7	Т	
Penaeus shrimp	Penaeus subtilis	French Guiana EEZ	M6	M7	Т	

Appendix XIII

## List of optional species for EP

	Species	Area/Stock	Sampling strata
	ICES areas I, II	I	
Greenland halibut	Reinhardtius hippoglos- soides	I, II	Y3
N	orth Sea (Skagerrak) — ICES	area IIIa (north)	·
Dab	Limanda limanda	IIIa N	R2
Whiting	Merlangius merlangus	IIIa N	R2
Sharks	Squalidae	IIIa N	Z3
ICE	S area III (excluding Skagerra	k), including Baltic	
Whitefish	Coregonus lavaretus	IIId	R2
Pike	Esox lucius	IIId	R2
Dab	Limanda limanda	IIIa S, IIIb-d	R2
Haddock	Melanogrammus aeglefinus	IIIa S	R2
Whiting	Merlangius merlangus	IIIa S	R2
Perch	Perca fluviatilis	IIId	R2
Plaice	Pleuronectes platessa	IIIb-d	R2
Saithe	Pollachius virens	IIIa S	R2
Turbot	Psetta maxima	IIIb-d	R2
Pike-perch	Stizostedion lucioperca	IIId	R2
North	h Sea and eastern Channel —	ICES areas IV, VIId	<b>'</b>
Catfish	Anarhichas spp.	IV	Z3
Гusk	Brosme brosme	IV, IIIa	Z3
Witch flounder	Glyptocephalus cynoglossus	IV	Z3
Bluemouth rockfish	Helicolenus dactylopterus	IV	Z3
Dab	Limanda limanda	IV, VIId	Z2
Roughhead grenadier	Macrourus berglax	IV, IIIa	Z3
Blue ling	Molva dypterygia	IV, IIIa	Z3
Ling	Molva molva	IV, IIIa	Z3
Common scallop	Pecten maximus	VIId	Z2
Forkbeard	Phycis phycis	IV	Z3
Greenland halibut	Reinhardtius hippoglos- soides	IV	Z3

	Species	Area/Stock	Sampling strata
Salmon	Salmo salar	IV	Z0
Redfish	Sebastes spp.	IV	Z3
Deepwater sharks	Shark-like Selachii	IV	Z3
Small sharks	Shark-like Selachii	IV, VIId	Z3
Spurdogs	Squalus acanthias	IV, VIId	Z3
NE Atlantic and wester	rn Channel — ICES V, VI, VI	II (excluding d), VIII, IX, X	, XII, XIV
Scabbardfish	Aphanopus spp.	all areas, excluding IXa,	Z2
Meagre	Argyrosoma regius	all areas	Z2
Alfonsinos	Beryx spp.	all areas, excluding X	Z2
Whelks	Busycon spp.	all areas	Y2
Conger	Conger conger	all areas, excluding X	Y2
Seabass	Dicentrarchus labrax	IX	Y2
Witch	Glyptocephalus cynoglossus	VI, VII	Y2
Bluemouth rockfish	Helicolenus dactylopterus	all areas, excluding IXa,	Z2
Common squid	Loligo vulgaris	all areas, excluding VIIIc, IXa	Y2
Capelin	Mallotus villosus	XIV	Y2
Wedge sole	Microchirus variegatus	all areas	Y2
Lemon sole	Microstomus kitt	all areas	Z2
Blue ling	Molva dypterygia	all areas, excluding X	Y2
Common octopus	Octopus vulgaris	all areas, excluding VIIIc, IXa	Z2
Pandalid shrimp	Pandalus spp.	all areas	Z2
Forkbeard	Phycis phycis	all areas, excluding X	Z2
Plaice	Pleuronectes platessa	VIIbc/VIIhk/VIII, IX, X	Y2
Pollack	Pollachius pollachius	all areas	Y2
Salmon	Salmo salar	all areas	Z0
Cuttlefish	Sepia officinalis	all areas, excluding VIIIc, IXa	Z2
Razor clams	Solen spp.	all areas	Z2
Sea bream	Sparidae	all areas, excluding VIIIc, IXa, X	Z2
Spurdog	Squalus acanthias	all areas	Y2

S	Area/Stock	Samplin strata	
Mediterranean horse mackerel	Trachurus mediterraneus	VIIIc, IXa	Y2
Pouting	Trisopterus spp.	all areas, excluding VIIIc, IXa	Z2
Other deepwater species	Other deepwater species	all areas	Z2
	Mediterranean		
Blue whiting	Micromesistius poutassou	1.1, 3.1	Y6
	NAFO areas		
Pandalus shrimp	Pandalus spp.	3LN	Y2
	CECAF FAO 3	4	
Anchovy	Engraulis encrasicolus		Y7
Silver scabbardfish	Lepidopus caudatus	Mauritania	Y7
Common squid	Loligo vulgaris	Atlantic EC	Y7
Bonito	Sarda sarda	Mauritania	Q7
Round sardinella	Sardinella aurita	Mauritania, Atlantic EC	Y7
Short-body sardinella	Sardinella maderensis	Mauritania, Atlantic EC	Y7
Chub mackerel	Scomber japonicus	Mauritania	Y7
Cuttlefish	Sepia hierredda	Atlantic EC	Y7
Finfish	Sparidae, Serranidae, Haemulidae	Atlantic EC	Y7
Horse mackerel	Trachurus trachurus	Mauritania	Y7
Cunene horse mackerel	Trachurus trecae	Mauritania	Y7
Scabbardfish	Trichiuridae		Y7
	CCAMLR FAO	58	
Antarctic icefish	Champsocephalus gunnari	Kerguelen	Y6
Antarctic toothfish	Dissostichus eleginoides	Kerguelen	Y6
Grenadiers	Macrouridae	Kerguelen, Crozet	Y6
Grey rock cod	Notothenia squamifrons	Kerguelen	Y6
Skates	Raja spp.	Kerguelen, Crozet	Y6
	South-west Atlantic I	FAO 41	
Antarctic toothfish	Dissostichus eleginoides	Argentina/UK	Y7
Cusk-eel	Genypterus blacodes	Argentina/UK	Y7
Short-finned squid	Illex argentinus	Argentina/UK	Q7
Patagonian squid	Loligo gahi	Argentina/UK	Q7

Spe	ecies	Area/Stock	Sampling strata
Grenadiers	Macrourus spp.	Argentina/UK	Y7
Patagonian grenadier	Macruronus magella- nicus	Argentina/UK	Y7
Southern hake	Merluccius australis	Argentina/UK	Y7
Argentinian hake	Merluccius hubbsi	Argentina/UK	Q7
Southern blue whiting	Micromesistius australis	Argentina/UK	Y7
Patagonian rock cod	Notothenia spp., Patago- notothen spp.	Argentina/UK	Y7
Red cod	Salilota australis	Argentina/UK	Y7
	Angola FAO 47		
Red striped shrimp	Aristeus varidens	Angola	Q7
Deepwater rose shrimp	Parapenaeus longirostris	Angola	Q7
Penaeid shrimp	Penaeus spp.	Angola	Q7

## Appendix XIV (section G)

## List of surveys (MP, EP)

Name of the	A	Period	Main objectives (Species	Surve	y effort	Priority
survey	Area	Period	etc.)	etc.) days hauls	Priority	
		ICES area II	II including Baltic			
BITS first/fourth quarter	IIIaS, IIIb-d	First and fourth quarters	Cod and other demersal species	129-157	510	1
IBTS first/third quarter	IIIa	First and third quarters	Haddock, cod, saithe, herring, sprat, whiting, mackerel, Norway pout	22-26	95	1
Herring acoustic survey	IIIa and IIIb-d	Third and fourth quarters	Herring, sprat	60-74	180	1
Sprat acoustic survey	IIIc-d	Second quarter	Sprat	32-39	85	1
Herring larvae survey	IIIc	Second quarter	Herring larvae	54-66	400	2
German flatfish survey	IIIc	Third quarter	Flounder	24-30	20	2
		North Sea and easte	ern Channel and Area I	[		
IBTS first quarter	IV, IIIa	First quarter	Haddock, cod, saithe, herring, sprat, whiting, mackerel, Norway pout	117-143	360	1
Atlan/Scand. herring survey	IIa	May	Herring, blue whiting	27-33	90 + track	1
IBTS third quarter	IV, IIIa	Third quarter	Haddock, cod, saithe, herring, sprat, whiting, mackerel, Norway pout	117-143	360	1
NS herring acoustic survey	IV, IIIa	July	Herring, sprat	68-83	150 + track	1
BTS	IVb, IVc, VIId	Third quarter	Plaice, sole	50-62	280	1
Sole net survey	IVb, IVc	Third quarter	Sole, plaice	14-17	60	1
Demersal young fish survey	Coasts of NS	Third, fourth quarters	Plaice, sole, brown shrimp	117-143	1 000	1
Herring larvae survey	IV, VIId	First, fourth quarters	Herring, sprat larvae	37-45	390	2
Greenland halibut survey	IIb slopes	October since 1997	Greenland halibut	27-33	from 300-750 m water depth	2
Nephrops TV survey	IVa, IVb	First, fourth quarters	Nephrops	17-21	90	2

Name of the	Area	Period	Main objectives (Species etc.)	Survey effort		Priority
survey	Area			days	hauls	Priority
Channel ground fish survey	VIId	Fourth quarter	Whiting, cod, pout, plaice, red gurnard, black bream, red mullet	27-33	100	2
German cod survey	German Bight	First, fourth quarters	Cod, whiting, plaice and dab	14-18	70	2
Mackerel egg survey	IV	May-July (triennial)	Mackerel egg production	14	130	1
		NE Atlantic area	and western Channel			
Western IBTS fourth quarter	VIa, VII, VIII, IXa	October-November	Groundfish survey (gadoids and pelagics) abundance indices	149-182	580	1
ISBCBTS	VIIa f g	September	Sole, plaice	22-26	120	1
Mackerel/horse mackerel egg survey	VIa, VII, VIII, IXa	January-July (triennial)	Mackerel, horse mackerel egg production	252-308	1 750 plankto- n/50 bottom trawls	1
Spawning/pre- spawning herring acoustic survey	VIa, VIIa, g	July, September, November, March, January	Herring, sprat	126-154	Acoustic track	1
Sardine, anchovy, horse mackerel acoustic survey	VIII, IX	March/April/May	Sardine, anchovy, mackerel, horse mackerel abundance indices	77-95	140	1
Bioman	VIII	May	Anchovy SSB (DEP)	18-22	600/20 pelagic hauls	1
Redfish survey	Irminger Sea	June (every two years)	Redfish abundance, age	24-30	20	1
Sardine DEPM	VIIIc, IXa	Spring (VIII), winter (IX), Triennial	Sardine SSB and use of CUFES to improve estimates	108-132	1 200	1
WCBTS	VIIe	October	Sole, plaice, anglerfish, lemon sole	7-9	55	1
Blue whiting survey	VI, VII	March-April	Blue whiting	40	80	1
RESSGASC	VIIIa, b	May and October	Abundance indices, discards for hake, sole	22-26	70	2
Nephrops TV survey	VIa		Nephrops (from burrow counts)	28-34	200	2
Egg production survey	VIIa	January-May (five- yearly)	Egg production (demersal)	58-70	800	2
DARD groundfish	VIIa	March	Groundfish survey (gadoids and pelagics)	9-11	45	2

Name of the	Area	Period	Main objectives (Species	Survey effort		Priority
survey	Alea	renod	etc.)	days	hauls	Filolity
DARD herring larvae	VIIa	November	Larva indices: herring	5-6	60	2
DARD MIK-net	VIIa	May/June	Pelagic juvenile indices: gadoids	5-6	45	2
DARD Nephrops	VIIa	April and August	Distribution and biology: Nephrops	14-18	80	2
Juvenile plaice survey	VIIa	May	Young plaice	6-8	25	2
Nephrops	VIIa	June	Nephrops ecology	6-8	25	2
Cod tagging	VIIa, b, VIa-b	March	Cod	9-11	30	2
Egg and larval survey	VI	April	Demersal (gadoids)	25-31	70	2
ARSA	IXa	March	Abundance indices for demersal stocks	15-19	50	2
Sardine acoustic survey (SAR)	IXa	November	Abundance indices, recruitment	23-29	40	2
Nephrops	IXa	June	Nephrops abundance indices/Nephrops recruitment	15-19	60	2
Groundfish survey summer	IXa	July/August	Abundance for hake, horse mackerel, mackerel	23-28	65	2
Deep sea fish survey	IXa	August/September	Abundance indices of deep sea stocks	41-50	130	2
ARQDAÇO	X	April/May	Abundance of bluemouth rockfish, forkbears, alfonsinos, conger, sea breams	41-50	35	2
DEEP	X	Fourth quarter	Distribution and abundance	27-33	25	2
Pelagicos	X	Third quarter	Distribution and abundance of tuna and sharks	27-33	25	2
Greenland groundfish survey	ICES XIV, NAFO SA1	September/October	Distribution, abundance, biomass, recruitment of target species, cod and other species	42-52	70 down to 400 m	2
IBTS (WCGFS)	VIIe-k, VIIIa	March	Groundfish survey (gadoids and pelagics)	27-33	80	2
Scottish west coast, young fish survey	VIa, VIIa	March	Gadoids, herring, mackerel	19-23	60	2
Rockall survey	VIb	September (biennial)	Haddock	12-14	40	2
Deepwater survey	VIa	September (biennial)	Deepwater species abundance	14	35	2

Name of the			Main objectives (Species	Survey	effort	
survey	Area	Period	etc.)	days	hauls	Priority
Porcupine groundfish survey	VIIb, c, j, k	Third quarter	Hake, monk, megrim	30	90	2
		Medi	iterranean			
Medits	37(1, 2, 3.1)	Second quarter	30 species	320-391	1 100	1
Pelmed	37(2)	June-July	Sardine, anchovy (abundance indices)	23-28	15	2
GRUND	37(1, 2)		Biological data of 10 target species	81-99	1 080	2
Anchovy	37(3.1)		Anchovy abundance estimation	11-13	110	2
Ecomed	37(1)	November-December	Sardine, anchovy (abundance indices)	27-33	55	2
Sardine	37(3.1, 2.2)		Sardine abundance estimation	27-33	110	2
	•	NA	FO area			
Flemish cap groundfish survey	3M	July since 1988	Cod, American plaice, redfish, Greenland halibut, roughhead grenadier, shrimp	30-36	120 up to 750 m water depth	1
3NO groundfish survey	3NO	April/May since 1995	Yellowtail flounder, American plaice, cod, redfish, Greenland halibut, roughhead grenadier	27-33	120 to 1 250 m	2
		Indian and Atlantic (	Oceans, Mediterranean S	ea		
Tuna tagging (only for assessment purposes)	Indian and Atlantic Oceans, Mediter- ranean		Bigeye, bluefin, swordfish			1
Tuna tagging (only for assessment purposes)	Indian and Atlantic Oceans, Mediter- ranean		Yellow fin, skipjack, albacore			2

### Appendix XV (section H)

### Age-length sampling scheme (MP, EP)

### LEGEND:

(a) M: Mandatory species which should be sampled within the minimum programme

O: Optional species which could be sampled within extended programme

N/A: not applicable

(b) Market sampling effort defined as the numbers of samples taken per average tonne of landings of the last three years, on an annual basis:

A	1/20
В	1/50
С	1/100
D	1/200
Е	1/500
F	1/1 000
G	1/2 000

(c) Length sampling level defined as the number of fish measured per sample:

0	400
1	200
2	100
3	50
4	25 or less as available

(d) As regards ageing, in cases where the sampling scheme as given in this Appendix is excessive, the following rule applies:

For stocks for which age reading is possible, 40 individuals must be aged per year within each length interval. However, this number can be reduced if Member States establish that such a reduction will not affect the quality of the age composition estimate.

S <sub>1</sub>	pecies	Area/Stock	M/O	Length	
	ICI	ES areas I, II			
Eel	Anguilla anguilla	I, II	M	A2	
Atlanto-Scandian herring	Clupea harengus	IIa, V	M	F3	
Cod	Gadus morhua	I, II	M	D3	
Haddock	Melanogrammus aeglefinus	I, II	M	D3	
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV	M	F3	
Northern shrimp	Pandalus borealis	I, II	M	D2	
Saithe	Pollachius virens	I, II	M	D2	
Greenland halibut	Reinhardtius hippoglossoides	I, II	О	F3	
Redfish	Sebastes spp.	I, II	M	E2	
Horse mackerel	Trachurus trachurus	IIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIabde	M	F3	
	North Sea (Skagerra	ak) — ICES area IIIa (	(north)	1	
Sand eel	Ammodytidae	IIIa N	M	F3	
Eel	Anguilla anguilla	IIIa N	M	A2	
Herring	Clupea harengus	IV, VIId, IIIa/22-24, IIIa	М	F2	
Cod	Gadus morhua	IV, VIId, IIIa	M	СЗ	
Dab	Limanda limanda	IIIa N	О	СЗ	
Haddock	Melanogrammus aeglefinus	IV, IIIa	M	СЗ	
Whiting	Merlangius merlangus	IIIa N	О	СЗ	
Hake	Merluccius merluccius	IIIa, IV, VI, VII, VIIIab	M	СЗ	
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV	М	F3	
Norway lobster	Nephrops norvegicus	Functional unit	М	C1	
Pandalid shrimp	Pandalus borealis	IIIa, IVa east	M	СО	
Plaice	Pleuronectes platessa	IIIa	M	СЗ	
Saithe	Pollachius virens	IV, IIIa, VI	M	С3	
Mackerel	Scomber scombrus	IIIa, IVbc, VIId	M	Е3	
Sole	Solea solea	IIIa	P	В3	

Species		Area/Stock	M/O	Length	A
Sprat	Sprattus sprattus	IIIa	M	F2	
Sharks	Squalidae	IIIa N	О	C4	N
Norway pout	Trisopterus esmarki	IV, IIIa	M	F3	
	ICES area III (exclud	ing Skagerrak) includir	g Baltic	•	
Eel	Anguilla anguilla	IIIa (excluding a N)	M	A2	1
Herring	Clupea harengus	22-24/25-29, 32/30/ 31/Gulf of Riga	M	F2	]
Whitefish	Coregonus lavaretus	IIId	О	СЗ	(
Pike	Esox lucius	IIId	О	СЗ	(
Cod	Gadus morhua	IIIa S	M	СЗ	(
Cod	Gadus morhua	IIIb-d	M	D3	]
Dab	Limanda limanda	IIIa S, IIIb-d	О	D3	]
Haddock	Melanogrammus aeglefinus	IIIa S	0	СЗ	(
Whiting	Merlangius merlangus	IIIa S	0	СЗ	(
Hake	Merluccius merluccius	IIIa, IV, VI, VII, VIIIab	M	СЗ	(
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV	M	F3	]
Norway lobster	Nephrops norvegicus	Functional unit	М	C1	N
Perch	Perca fluviatilis	IIId	О	СЗ	(
Flounder	Platichtys flesus	IIIb-d	M	СЗ	(
Plaice	Pleuronectes platessa	IIIa S	M	СЗ	(
Plaice	Pleuronectes platessa	IIIb-d	О	D3	]
Saithe	Pollachius virens	IIIa S	О	СЗ	(
Turbot	Psetta maxima	IIIb-d	О	СЗ	(
Salmon	Salmo salar	IIIb-d, 22-31/32	M	СЗ	(
Sea trout	Salmo trutta	IIIb-d	M	СЗ	(
Sole	Solea solea	IIIa	M	В3	]
Sprat	Sprattus sprattus	IIIa S	M	F2	]
Sprat	Sprattus sprattus	IIIb-d	M	G2	(
Pike-perch	Stizostedion lucioperca	IIId	0	С3	(

Species		Area/Stock	M/O	Length	Age
No	orth Sea and eastern	Channel — ICES are	as IV, VIId		
Sand eel	Ammodytidae	IV	M	G3	G3
Eel	Anguilla anguilla	IV, VIId	М	A2	A2
Catfish	Anarhichas spp.	IV	О	C4	C4
Argentine	Argentina spp.	IV	М	F1	F2
Tusk	Brosme brosme	IV, IIIa	О	C4	C4
Herring	Clupea harengus	IV, VIId, IIIa	М	F3	F4
Shrimp	Crangon crangon	IV, VIId	M	E2	N/A
Sea bass	Dicentrarchus labrax	IV, VIId	M	D3	D3
Cod	Gadus morhua	IV, VIId, IIIa	M	D3	D4
Witch flounder	Glyptocephalus cynoglossus	IV	О	C4	C4
Blue-mouth rockfish	Helicolenus dactylopterus	IV	О	C4	C4
Four-spot megrim	Lepidorhombus boscii	IV, VIId	М	ЕЗ	E4
Megrim	Lepidorhombus whiffiagonis	IV, VIId	M	E3	E4
Dab	Limanda limanda	IV, VIId	О	C4	C4
Black-bellied angler	Lophius budegassa	IV, VIId	М	D4	D4
Anglerfish	Lophius piscatorius	IV, VI	М	D4	D4
Roughhead grenadier	Macrourus berglax	IV, IIIa	0	C4	C4
Haddock	Melanogrammus aeglefinus	IV, IIIa	М	D3	D4
Whiting	Merlangius merlangus	IV, VIId	М	E4	D4
Hake	Merluccius merluccius	IIIa, IV, VI, VII, VIIIab	М	C4	C4
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV	М	F3	F3
Lemon sole	Microstomus kitt	IV, VIId	М	D4	D4
Blue ling	Molva dypterygia	IV, IIIa	О	C4	C4
Ling	Molva molva	IV, IIIa	О	C4	C4
Red mullet	Mullus barbatus	IV, VIId	М	D3	D3
Striped red mullet	Mullus surmuletus	IV, VIId	M	D3	D3

Spec	eies	Area/Stock	M/O	Length	Α
Norway lobster	Nephrops norvegicus	Functional unit	M	В0	N
Northern shrimp	Pandalus borealis	IIIa, IVa east/IVa	M	E2	N
Common scallop	Pecten maximus	VIId	М	D3	N
Forkbeard	Phycis phycis	IV	О	C4	C
Plaice	Pleuronectes platessa	IV	М	ЕЗ	Е
Plaice	Pleuronectes platessa	VIId	M	C1	C
Saithe	Pollachius virens	IV, IIIa, VI	М	D3	Г
Turbot	Psetta maxima	IV, VIId	М	D4	D
Thornback ray	Raja clavata	IV, VIId	M	E4	N.
Spotted ray	Raja montagui	IV, VIId	M	E4	N.
Cuckoo ray	Raja naevus	IV, VIId	M	E4	N
Starry ray	Raja radiata	IV, VIId	M	E4	N.
Other rays and skates	Rajidae	IV, VIId	M	E4	N
Greenland halibut	Reinhardtius hippoglossoides	IV	О	C4	C
Salmon	Salmo salar	IV	О	C4	C
Mackerel	Scomber scombrus	IIIa, IVbc, VIId	M	F3	F
Brill	Scophthalmus rhombus	IV, VIId	М	D4	Б
Redfish	Sebastes spp.	IV	О	C4	C
Deepwater shark	Shark-like Selachii	IV	О	C4	N
Small shark	Shark-like Selachii	IV, VIId	О	C4	N
Sole	Solea solea	IV	M	D3	D
Sole	Solea solea	VIId	М	C1	C
Sprat	Sprattus sprattus	IV/VIIde	M	G3	C
Spurdog	Squalus acanthias	IV, VIId	О	C4	N
Horse mackerel	Trachurus spp.	IIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIabde/IIIa, IVbc, VIId	М	F2	F
Norway pout	Trisopterus esmarki	IV	М	G3	C
NE Atlantic and weste	rn Channel — ICES	areas V, VI, VII (exclud	ding d), V	III, IX, X,	XII, Z
	Anguilla anguilla	all areas	M	A2	A

Spe	cies	Area/Stock	M/O	Length	
Scabbardfish	Aphanopus spp.	all areas, excluding IXa, X	V	F3	
Scabbardfish	Aphanopus spp.	IXa, X	М	B2	
Argentine	Argentina spp.	all areas	M	F1	
Meagre	Argyrosoma regius	all areas	О	F3	
Alfonsinos	Beryx spp.	all areas, excluding X	О	F3	
Alfonsinos	Beryx spp.	X	M	A3	
Whelk	Busycon spp.	all areas	О	F3	
Edible crab	Cancer pagurus	all areas	M	D3	N
Gulper shark	Centrophorus granulosus	all areas	М	B4	N
Leafscale gulper shark	Centrophorus squamosus	all areas	M	B4	N
Portuguese dogfish	Centroscymnus coelolepis	all areas	М	B4	N
Herring	Clupea harengus	VIa/VIaN/VIaS, VIIbc/VIIa/VIIj	О	F3	
Conger	Conger conger	all areas, excluding X	О	F3	
Conger	Conger conger	X	М	B4	
Roundnose grenadier	Coryphaenoides rupestris	all areas	М	F3	(
Sea bass	Dicentrarchus labrax	all areas, excluding IX	М	D3	
Sea bass	Dicentrarchus labrax	IX	О	F3	
Anchovy	Engraulis encra- sicolus	IXa (only Cádiz)	М	E2	
Anchovy	Engraulis encra- sicolus	VIII	M	D3	
Cod	Gadus morhua	Va/Vb/VIa/VIb/ VIIa/VIIe-k	M	D3	
Witch	Glyptocephalus cynoglossus	VI, VII	О	F3	
Bluemouth rockfish	Helicolenus dactylopterus	all areas, excluding IXa, X	О	F3	
Bluemouth rockfish	Helicolenus dactylopterus	IXa, X	М	В3	-
Lobster	Homarus gammarus	all areas	М	F3	N
Orange roughy	Hoplostethus atlanticus	all areas	М	F3	

Spe	ecies	Area/Stock	M/O	Length	Age
Four-spot megrim	Lepidorhombus boscii	VIIIc, IXa	M	СЗ	Е3
Megrim	Lepidorhombus whiffiagonis	VII, VIIIabd/VIIIc, IXa	М	СЗ	Е3
Common squid	Loligo vulgaris	all areas, excluding VIIIc, IXa	О	F3	N/A
Common squid	Loligo vulgaris	VIIIc, IXa	М	B2	N/A
Black-bellied angler	Lophius budegassa	IV, VI/VIIb-k, VIIIabd	М	СЗ	D4
Black-bellied angler	Lophius budegassa	VIIIc, IXa	М	В3	Е3
Anglerfish	Lophius piscator- ious	IV, VI/VIIb-k, VIIIabd	М	СЗ	D4
Anglerfish	Lophius piscator- ious	VIIIc, IXa	М	В3	E3
Capelin	Mallotus villosus	XIV	0	F3	F3
Haddock	Melanogrammus aeglefinus	Va/Vb	М	F4	F4
Haddock	Melanogrammus aeglefinus	VIa/VIb/VIIa/VIIb-k	М	E4	Е3
Whiting	Merlangius merlangus	VIII/IX, X	М	F3	F4
Whiting	Merlangius merlangus	Vb/VIa/VIb/VIIa/ VIIe-k	М	СЗ	Е3
Hake	Merluccius merluccius	IIIa, IV, VI, VII, VIIIab/VIIIc, IXa	М	СЗ	Е3
Wedge sole	Microchirus variegatus	all areas	О	F3	F3
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV	М	F3	F4
Lemon sole	Microstomus kitt	all areas	О	F3	F3
Blue ling	Molva dypterygia	all areas, excluding X	О	F3	F4
Blue ling	Molva dypterygia	X	М	A4	A4
Ling	Molva molva	all areas	М	F3	F4
Striped red mullet	Mullus surmuletus	all areas	М	F3	F3
Norway lobster	Nephrops norvegicus	VI Fuctional unit	М	В0	N/A
Norway lobster	Nephrops norvegicus	VII Functional unit	М	B1	N/A
Norway lobster	Nephrops norvegicus	VIII, IX Functional unit	М	A1	N/A

Spec	cies	Area/Stock	M/O	Length	Age
Common octopus	Octopus vulgaris	all areas, excluding VIIIc, IXa	О	F3	N/A
Common octopus	Octopus vulgaris	VIIIc, IXa	M	В3	N/A
Pandalid shrimps	Pandalus spp.	all areas	О	F3	N/A
White shrimp	Parapenaeus longirostris	IXa	M	B1	N/A
Forkbeard	Phycis phycis	all areas, excluding X	0	F3	F3
Forkbeard	Phycis phycis	X	M	В3	B4
Plaice	Pleuronectes platessa	VIIa/VIIe/VIIfg	M	B1	В3
Plaice	Pleuronectes platessa	VIIbc/VIIh-k/VIII, IX, X	0	F3	F4
Pollack	Pollachius pollachius	all areas	0	F3	F4
Saithe	Pollachius virens	Va/Vb/IV, IIIa, VI	M	СЗ	E3
Saithe	Pollachius virens	VII, VIII	M	F3	F4
Wreckfish	Polyprion americanus	X	М	A4	A4
Blond ray	Raja brachyura	all areas	M	F4	N/A
Thornback ray	Raja clavata	all areas	M	F4	N/A
Spotted ray	Raja montagui	all areas	M	F4	N/A
Cuckoo ray	Raja naevus	all areas	M	E4	N/A
Other rays and skates	Rajidae	all areas	M	F4	N/A
Greenland halibut	Reinhardtius hippoglossoides	V, XIV/VI	M	A2	E3
Salmon	Salmo salar	all areas	О	F3	F3
Sardine	Sardina pilchardus	VIIIabd/VIIIc, IXa	M	СЗ	ЕЗ
Spanish mackerel	Scomber japonicus	VIII, IX	M	D3	F4
Mackerel	Scomber scombrus	II, IIIa, IV, V, VI, VII, VIII, IX (excluding VIIIc, IXa)	М	F3	F4
Mackerel	Scomber scombrus	VIIIc, IXa	М	D4	D4
Redfishes	Sebastes spp.	V, VI, XII, XIV	M	C2	E3
Cuttlefish	Sepia officinalis	Mackerel, excluding VIIIc, IXa	0	F3	N/A
Cuttlefish	Sepia officinalis	VIIIc, IXa	M	В3	N/A

		T	1	1	I
Spe	cies	Area/Stock	M/O	Length	Age
Sole	Solea solea	VIIa/VIIfg	М	B1	В3
Sole	Solea solea	VIIbc/VIIhjk/IXa	M	F3	F4
Sole	Solea solea	VIIe	М	СЗ	D4
Sole	Solea solea	VIIIab	М	B1	С3
Razor clams	Solen spp.	all areas	V	F3	N/A
Sea bream	Sparidae	all areas, excluding VIIIc, IXa, X	О	F3	F3
Sea bream	Sparidae	VIIIc, IXa, X	М	В3	B4
Spurdog	Squalus acanthias	all areas	0	F3	N/A
Mediterranean horse mackerel	Trachurus medi- terraneus	VIII, IX	V	F3	F4
Blue jack mackerel	Trachurus picturatus	X	М	В3	C4
Horse mackerel	Trachurus trachurus	IIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIabde/X	М	F3	F4
Horse mackerel	Trachurus trachurus	VIIIc, IXa	М	D3	E2
Pouting	Trisopterus luscus	VIIIc, IXa	М	B4	B4
Pouting	Trisopterus spp.	all areas, excluding VIIIc, IXa	О	F3	F3
Other deepwater species	Other deepwater species	all areas	О	F3	F3
	Me	editerranean			
Eel	Anguilla anguilla	all areas	М	A2	A2
Giant red shrimp	Aristeomorpha foliacea	1.3, 2.2, 3.1	М	В3	N/A
Red shrimp	Aristeus antennatus	1.1, 1.3, 2.2, 3.1	М	В3	N/A
Bogue	Boops boops	1.3, 2.1, 2.2, 3.1	М	E3	E4
Dolphinfish	Coryphaena hippurus	all areas	М	В3	В3
Dolphinfish	Coryphaena equiselis	all areas	М	В3	В3
Sea bass	Dicentrarchus labrax	1.2	М	E3	E3
Horned octopus	Eledone cirrosa	1.1, 1.3, 2.1, 2.2, 3.1	М	E4	N/A
Musky octopus	Eledone moschata	1.3, 2.1, 2.2, 3.1	М	E4	N/A
Anchovy	Engraulis encra- sicolus	all areas	М	D3	E4

Spe	ecies	Area/Stock	M/O	Length	A
Grey gurnard	Eutrigla gurnardus	1.3, 2.2, 3.1	М	D3	
Squid	Illex spp., Todarodes spp.	1.3, 2.1, 2.2, 3.1	М	D3	ľ
Billfish	Istiophoridae	all areas	M	D2	
Common squid	Loligo vulgaris	1.3, 2.2, 3.1	M	D3	N
Black-bellied angler	Lophius budegassa	1.1, 1.3, 2.2, 3.1	М	C2	
Anglerfish	Lophius piscatorius	1.1, 1.3, 2.2, 3.1	М	C2	
Hake	Merluccius merluccius	all areas	М	СЗ	]
Blue whiting	Micromesistius poutassou	1.1, 3.1	V	D3	
Grey mullets	Mugilidae	1.3, 2.1, 2.2, 3.1	М	D3	]
Red mullet	Mullus barbatus	all areas	М	СЗ	]
Striped red mullet	Mullus surmuletus	all areas	М	СЗ	
Norway lobster	Nephrops norvegicus	1.3, 2.1, 2.2, 3.1	М	В3	ì
Common octopus	Octopus vulgaris	all areas	М	E4	ì
Pandora	Pagellus erythrinus	1.1, 1.2, 2.1, 2.2, 3.1	М	D3	-
White shrimp	Parapenaeus longirostris	1.1, 1.3, 2.2, 3.1	М	СЗ	1
Caramote prawn	Penaeus kerathurus	3.1	М	Е3	N
Thornback ray	Raja clavata	1.3, 2.1, 2.2, 3.1	M	D3	N
Brown ray	Raja miraletus	1.3, 2.1, 2.2, 3.1	M	D3	N
Atlantic bonito	Sarda sarda	all areas	M	E4	
Sardine	Sardina pilchardus	all areas	М	D3	
Mackerel	Scomber spp.	1.3, 2.2, 3.1	М	E4	
Cuttlefish	Sepia officinalis	1.3, 2.1, 3.1	М	E3	N
Sharks	Shark-like Selachii	all areas	М	D2	N
Sole	Solea vulgaris	1.2, 2.1, 3.1	M	Е3	
Gilthead sea bream	Sparus aurata	1.2, 3.1	М	Е3	
Picarels	Spicara spp.	1.3, 2.1, 2.2, 3.1	М	Е3	
Mantis shrimp	Squilla mantis	1.3, 2.1, 2.2	M	E4	N

Spec	vies	Area/Stock	M/O	Length	Age
Albacore	Thunnus alalunga	all areas	M	C2	C2
Bluefin tuna	Thunnus thynnus	all areas	M	C2	C2
Mediterranean horse mackerel	Trachurus medi- terraneus	1.1, 1.3, 3.1	М	ЕЗ	E4
Horse mackerel	Trachurus trachurus	1.1, 1.3, 3.1	M	E3	E4
Tub gurnard	Trigla lucerna	1.3, 2.2, 3.1	M	D3	D3
Clam	Veneridae	2.1, 2.2	M	F3	EI
Swordfish	Xiphias gladius	all areas	M	C2	C2
	N	AFO areas	I	l	
Cod	Gadus morhua	2J 3KL	M	A2	E3
Cod	Gadus morhua	3M	M	A2	E3
Cod	Gadus morhua	3NO	M	A2	E3
Cod	Gadus morhua	3Ps	M	F4	F4
Cod	Gadus morhua	SA 1	M	F4	F4
Witch flounder	Glyptocephalus cynoglossus	3NO	М	A2	A2
American plaice	Hippoglossoides platessoides	3LNO	М	A2	E3
American plaice	Hippoglossoides platessoides	3M	М	A2	E3
Yellowtail flounder	Limanda ferruginea	3LNO	М	A2	A2
Grenadier	Macrouridae	SA 2 + 3	М	A2	E3
Pandalid shrimp	Pandalus spp.	3LN	О	F3	N/A
Pandalid shrimp	Pandalus spp.	3M	M	D2	N/A
Rays and skates	Raja spp.	SA 3	M	D2	N/A
Greenland halibut	Reinhardtius hippoglossoides	3KLMNO	М	A2	Е3
Greenland halibut	Reinhardtius hippoglossoides	SA 1	М	A2	E3
Redfish	Sebastes spp.	3LN	M	A2	A2
Redfish	Sebastes spp.	3M	М	A2	F3
Redfish	Sebastes spp.	30	M	C2	C2
Redfish	Sebastes spp.	SA 1	M	A2	A2
Hig	thly migratory species	s, Atlantic, Indian, Pac	ific Oceans	6	
Frigate tuna	Auxis spp.		М	E4	
-					

# $\sqrt[m]{M1}$

Spec	ies	Area/Stock	M/O	Length	Age
Atlantic back skipjack	Euthynnus alleteratus		М	E4	
Billfish	Istiophoridae		M	D2	
Shortfin mako	Isurus oxyrinchus		M	A4	
Skipjack tuna	Katsuwonus pelamis		M	C2	
Porbeagle	Lamna nasus		M	A4	
Blue shark	Prionace glauca		M	A4	
Atlantic bonito	Sarda sarda		M	E4	
Shark	Squalidae		M	D2	
Albacore	Thunnus alalunga		M	C2	
Yellowfin tuna	Thunnus albacares		М	C2	
Bigeye tuna	Thunnus obesus		M	C2	
Bluefin tuna	Thunnus thynnus		M	C2	
Swordfish	Xiphias gladius		M	C2	
	CE	CAF FAO 34			
Black scabbardfish	Aphanopus carbo	Madeira	M	D3	
Anchovy	Engraulis encra- sicolus		0	E3	
Silver scabbardfish	Lepidopus caudatus	Mauritania	0	D2	
Common squid	Loligo vulgaris	Atlantic EC	О	D2	
Hake	Merluccius spp.	Atlantic EC	M	C2	
Common octopus	Octopus vulgaris	Atlantic EC	M	C2	
Deepwater rose shrimp	Parapenaeus longirostris	Atlantic EC	M	C2	
Southern pink shrimp	Penaeus notialis	Atlantic EC	M	C2	
Bonito	Sarda sarda	Mauritania	0	F2	
Sardine	Sardina pilchardus	Atlantic EC	М	Е3	
Round sardinella	Sardinella aurita	Mauritania, Atlantic EC	О	F3	
Short-body sardinella	Sardinella maderensis	Mauritania, Atlantic EC	0	F3	
Chub mackerel	Scomber japonicus	Madeira	M	D2	
Chub mackerel	Scomber japonicus	Mauritania	О	D2	

Spec	vies	Area/Stock	M/O	Length	Age
Cuttlefish	Sepia hierredda	Atlantic EC	О	D2	
Finfish	Sparidae, Serranidae, Haemulidae	Atlantic EC	О	D2	
Horse mackerel	Trachurus spp.	Madeira	О	D3	
Atlantic horse mackerel	Trachurus trachurus	Mauritania	О	D2	
Cunene horse mackerel	Trachurus trecae	Mauritania	О	D2	
Scabbardfish	Trichiuridae		О	D2	
	ı	WECAF	L	l	
Red snapper	Lutjanus purpureus	French Guiana EEZ	М	C2	
Penaeus shrimp	Penaeus subtilis	French Guiana EEZ	М	C2	
	CCA	AMLR FAO 58	L	l	
Antarctic icefish	Champsocephalus gunnari	Kerguelen	О	C2	
Antarctic toothfish	Dissostichus eleginoides	Kerguelen	О	C2	D3
Grenadier	Macrouridae	Kerguelen Crozet	О	C2	
Grey rock cod	Notothenia squamifrons	Kerguelen	О	C2	
Rays and skates	Raja spp.	Kerguelen Crozet	О	C2	
	South-we	est Atlantic FAO 41	•	•	
Antarctic toothfish	Dissostichus eleginoides	Argentina/UK	О	D2	D2
Cusk eel	Genypterus blacodes	Argentina/UK	О	D2	D2
Argentine short-finned squid	Illex argentinus	Argentina/UK	О	D2	N/A
Patagonian squid	Loligo gahi	Argentina/UK	О	D2	N/A
Grenadier	Macrourus spp.	Argentina/UK	О	D2	D2
Patagonian grenadier	Macruronus magellanicus	Argentina/UK	О	D2	D2
Southern hake	Merluccius australis	Argentina/UK	О	D2	D2
Argentinian hake	Merluccius hubbsi	Argentina/UK	О	D2	C2
Southern blue whiting	Micromesistius australis	Argentina/UK	О	D2	D2

Spec	ties	Area/Stock	M/O	Length	Age
Patagonian rock cod	Notothenia spp., Patagonotothen spp.	Argentina/UK	0	D2	D2
Red cod	Salilota australis	Argentina/UK	0	D2	D2
	An	gola FAO 47			
Red striped shrimp	Aristeus varidens	Angola	О	B2	N/A
Deepwater rose shrimp	Parapenaeus longirostris	Angola	О	B2	N/A
Penaeid shrimps	Penaeus spp.	Angola	О	B2	N/A

Appendix XVI (section I)

Other biological samplings

Y = yearly;

T = every three years;

S = every six years

c		A 1041.	Growt	Growth Data	Maturit	Maturity Data	Fecundity	ıdity	Sex ratio	atio
Species	v.	Area/Stock	Length	Weight	Length	Age	Length	Age	Length	Age
		ICI	ICES areas I, II	, ш						
Eel	Anguilla anguilla	Т, Ш	Т	Н						
Atlanto-Scandian herring	Clupea harengus	IIa, V	Т	Н	Т	Т			Н	Н
Cod	Gadus morhua	I, II	Н	⊢	⊢	Η			Η	⊢
Haddock	Melanogrammus aeglefinus	Т, П	Т	H	Т	Т			Н	Н
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV	Т	H	Т	L			Н	Н
Northern prawn	Pandalus borealis	Г, ІІ	Т	H	Т				Н	
Saithe	Pollachius virens	I, II	Т	⊣	Η	Τ			Т	Ε
Redfish	Sebastes spp. (*)	I, II	Т	⊢	Τ	Τ			Τ	L
Horse mackerel	Trachurus trachurus	IIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIabde	Τ		Τ	Τ			Т	T
		North Sea (Skagerrak) — ICES area IIIa (north)	ak) — IC	ES area II	Ia (north)					
Sand eel	Ammodytidae	IIIa N	Т	Н	L	Т			Т	⊢

č		A (C.t1.	Growtl	Growth Data	Maturit	Maturity Data	Fecui	Fecundity	Sex ratio	atio
Species	· ·	Area/Stock	Length	Weight	Length	Age	Length	Age	Length	Age
Ee1	Anguilla anguilla	IIIa N	Т	Т						
Herring	Clupea harengus	IV, VIId, IIIa/22- 24, IIIa	Т	Н	Т	T			Т	Н
Cod	Gadus morhua	IV, VIId, IIIa	Т	Н	Т	⊢			L	⊢
Haddock	Melanogrammus aeglefinus	IV, IIIa	Т	Н	Н	Н			Н	Н
Hake	Merluccius merluccius	IIIa, IV, VI, VII, VIIIab	Т	Н	Т	Н			Н	Н
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV	Т	Н	Т	Н			Т	Н
Norway lobster	Nephrops norvegicus	Functional unit	S	S	S				Т	
Northern shrimp	Pandalus borealis	IIIa, IVa east	Т	T	Т				Т	
Plaice	Pleuronectes platessa	IIIa	Т	Т	Т	T			Т	Н
Saithe	Pollachius virens	IV, IIIa, VI	Τ	T	T	T			T	Т
Mackerel	Scomber scombrus	IIIa, IVbc, VIId	Т	T	Т	T			Т	Н
Sole	Solea solea	IIIa	Т	Τ	Τ	T			T	Т
Sprat	Sprattus sprattus	IIIa	Т	T	T	T			T	Т
Norway pout	Trisopterus esmarki	ІV, Ша	Τ	Т	Т	Τ			Т	Т

		A (Ch)	Growt	Growth Data	Maturity Data	y Data	Fecundity	ndity	Sex ratio	atio
Species	S	Area/Stock	Length	Weight	Length	Age	Length	Age	Length	Age
		ICES area III (excluding Skagerrak) including Baltic	ling Skage	rrak) incl	uding Bal	tic				
Eel	Anguilla anguilla	IIIa (excluding a N)	L	Н						
Herring	Clupea harengus	22-24/25-29, 32/30/ 31/Gulf of Riga	L	T	Т	Т			Т	Т
Flounder	Platichthys flesus	IIIb-d	L	Т	Т	Т			Т	Т
Cod	Gadus morhua	IIIa S/22-24, 3d/25-	H	Н	Н	Т			Н	Н
Norway lobster	Nephrops norvegicus	Functional unit	S	S	S				Т	
Plaice	Pleuronectes platessa	IIIa S	L	L	T	Т			Ţ	L
Salmon	Salmo salar	IIIb-d, 22-31/32	T	T	T	Т			T	Т
Sea trout	Salmo trutta	p-qIII	Т	Т	Т	Т			Т	Т
Sole	Solea solea	IIIa	Т	Т	Т	Т			Т	Т
Sprat	Sprattus sprattus	IIIa S/IIIb-d	Т	Т	Т	Т			T	Τ
	I	North Sea and eastern Channel — ICES areas IV, VIId	Channel -	— ICES a	reas IV, V	Ша				
Sand eel	Ammodytidae	IV	Т	Т	Т	Т			T	Τ
Eel	Anguilla anguilla	IV, VIId	Т	Т						
Argentine	Argentina spp. (*)	IV	Τ	Τ	Т	Т			Т	Т

č		A (C.k1.	Growth	Growth Data	Maturit	Maturity Data	Fecundity	ndity	Sex ratio	atio
Species	S	Area/Stock	Length	Weight	Length	Age	Length	Age	Length	Age
Herring	Clupea harengus	IV, VIId, IIIa	Т	Т	Τ	T			T	Т
Shrimp	Crangon crangon	IV, VIId	Н	Н	Т				Н	
Seabass	Dicentrarchus labrax	IV, VIId	Η	Η	Т	Н			Н	H
Cod	Gadus morhua	IV, VIId, IIIa	H	H	Т	⊢			Т	H
Four-spot megrim	Lepidorhombus boscii	IV, VIId	Т	Т	Т	L			Т	L
Megrim	Lepidorhombus whiffagonis	IV, VIId	Η	Η	Т	Н			Н	Н
Black-bellied angler	Lophius budegassa	IV, VIId	Т	Т	Т	Т			Т	L
Anglerfish	Lophius piscatorius	IV, VI	L	L	Т	Т			Т	H
Haddock	Melanogrammus aeglefinus	IV, IIIa	Н	Н	Т	Н			Т	Н
Whiting	Merlangius merlangus	IV, VIId	Т	Т	Т	Т			Т	H
Hake	Merluccius merluccius	IIIa, IV, VI, VII, VIIIab	L	L	Т	Т			Т	H
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV	Т	Т	Т	Т			Т	L
Lemon sole	Microstomus kitt	IV, VIId	Т	Т	Т	Т			Τ	T
Red mullet	Mullus barbatus	IV, VIId	Т	Т	Τ	Т			Т	Т

6		A (Ck. 1.	Growth	Growth Data	Maturi	Maturity Data	Fecundity	ndity	Sex ratio	atio
Species	50	Area/Stock	Length	Weight	Length	Age	Length	Age	Length	Age
Striped red mullet	Mullus surmuletus	ІУ, УПА	Т	L	Т	Т			T	T
Norway lobster	Nephrops norvegicus	Functional unit	S	S	S				H	
Northern shrimp	Pandalus borealis	IIIa, IVa east/IVa	Н	H	Т				H	
Plaice	Pleuronectes platessa	IV/VIId	Т	Н	Т	Т			H	Н
Saithe	Pollachius virens	IV, IIIa, VI	Т	L	Т	Т			Т	Т
Turbot	Psetta maxima	IV, VIId	I	T	Τ	Τ			T	Т
Thornback ray	Raja clavata	IV, VIId	I	T	Τ				T	
Starry ray	Raja radiata	IV, VIId	T	T	Τ				T	
Cuckoo ray	Raja naevus	IV, VIId	I	T	Τ				T	
Spotted ray	Raja montagui	IV, VIId	T	T	Τ				T	
Other rays and skates	Rajidae (*)	IV, VIId	I	T	Τ				T	
Mackerel	Scomber scombrus	IIIa, IVbc, VIId	T	L	Т	T	T	Т	Т	L
Brill	Scopthalmus rhombus	IV, VIId	T	L	Т	T			Т	L
Sole	Solea solea	IV/VIId	T	Т	Т	Τ			T	T
Sprat	Sprattus sprattus	IV	T	T	Т	Τ			Т	Т

c		1	Growt	Growth Data	Maturi	Maturity Data	Fecundity	ndity	Sex ratio	atio
Species	s	Area/Stock	Length	Weight	Length	Age	Length	Age	Length	Age
Horse mackerel	Trachurus spp. (*)	IIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIabde/IIIa, IVbc, VIId	Η	Т	Τ	Η	Т	⊣	T	T
Norway pout	Trisopterus esmarki	IV	Н	H	L	Н			Н	Н
	NE Atlantic and wes	Atlantic and western Channel — ICES areas V, VI, VII (excluding d), VIII, IX, X, XII, XIV	areas V,	VI, VII (e)	ccluding d	), VШ, Б	λ, Х, ХШ,	XIV		
Eel	Anguilla anguilla	all areas	Н	Н						
Scabbardfish	Aphanopus spp. (*)	IXa, X	Н	Н	Т	Н			Н	Н
Argentine	Argentina spp. (*)	all areas	H	H	L	Н			Н	Н
Alfonsinos	Beryx spp. $(*)$	X	Т	Т	Τ	Τ			T	Т
Edible crab	Cancer pagurus	all areas	Т	Т	Т				Т	
Gulper shark	Centrophorus granulosus	all areas	H	H	L	N/A			Н	N/A
Leafscale gulper shark	Centrophorus squamosus	all areas	Т	L	Т	N/A			Т	N/A
Portuguese dogfish	Centroscymnus coelolepis	all areas	L	L	Τ	N/A			T	N/A
Herring	Clupea harengus	VIa/VIa N/VIaS, VIIbc/VIIa/VIIj	Т	Т	Т	Т			Т	Т
Conger	Conger conger	X	Т	Т	Т	Τ			Т	Т
Roundnose grenadier	Coryphaenoides rupestris	all areas	Т	Т	Т	Τ			Τ	Т

c		, , , , , , , , , , , , , , , , , , ,	Growth	Growth Data	Maturi	Maturity Data	Fecui	Fecundity	Sex ratio	ratio
Species	S	Area/Stock	Length	Weight	Length	Age	Length	Age	Length	Age
Seabass	Dicentrarchus labrax	all areas, excluding IX	Т	Т	Т	Т			L	H
Anchovy	Engraulis encra- sicolus	IXa, only Cádiz	Н	Н	Τ	Н	L	Т	⊢	Н
Anchovy	Engraulis encra- sicolus	VIII	Н	Н	Т	Н	Y	Y	¥	<b>&gt;</b>
Cod	Gadus morhua	Va/Vb/VIa/VIb/ VIIa/VIIe-k	Н	Н	Т	Н			Н	Н
Bluemouth rockfish	Helicolenus dactylopterus	IXa, X	Т	Т	Т	Т			Т	Т
Lobster	Homarus gammarus	all areas	Т	Т	Т				L	
Orange roughy	Hoplostethus atlanticus	all areas	Т	Т	Т	Т			L	H
Four-spot Megrim	Lepidorhombus boscii	VIIIc, IXa	Т	Т	Т	Т			L	H
Megrim	Lepidorhombus whiffagonis	VI/VII, VIIIabd/ VIIIc, IXa	Т	Т	Т	Т			Т	Т
Common squid	Loligo vulgaris	VIIIc, IXa	Τ	T	Τ				T	
Black-bellied angler	Lophius budegassa	IV, VI/VIIb-k, VIIIabd/VIIIc, IXa	Т	Т	Т	Τ			Т	Т
Anglerfish	Lophius piscatorius	IV, VI/VIIb-k, VIII abd/VIIIc, IXa	Т	Т	Т	Т			L	H
Haddock	Melanogrammus aeglefinus	Va/Vb, VI, XII, XIV/VIa/VIb/VIIa/ VIIb-k	T	T	Т	T			T	H

č		A (O.k 1.	Growth	Growth Data	Maturi	Maturity Data	Fecundity	ndity	Sex ratio	atio
Species	S	Area/Stock	Length	Weight	Length	Age	Length	Age	Length	Age
Whiting	Merlangius merlangus	VIII/IX, X	Т	Т					Т	
Whiting	Merlangius merlangus	Vb/VIa/VIb/VIIa/ VIIe-k	H	H	Т	Т			Н	H
Hake	Merluccius merluccius	IIIa, IV, VI, VII, VIIIab/VIIIc, IXa	Н	Н	Т	Т			H	H
Blue whiting	Micromesistius poutassou	I-IX, XII, XIV	Η	Η	Т	Т			H	H
Blue ling	Molva dypterygia	×	H	H	Т	Т			Н	H
Ling	Molva molva	all areas	Т	Т	Τ	Τ			Т	Т
Red mullet	Mullus surmuletus	all areas	Т	Т	Т	Т			Т	Т
Norway lobster	Nephrops norvegicus	Functional unit	S	S	S				Т	
Common octopus	Octopus vulgaris	VIIIc, IXa	Т	Т	Т				Т	
White shrimp	Parapenaeus longirostris	IXa	Т	Т	Т				Т	
Forkbeard	Phycis phycis	X	Т	Т	Т	Т			Τ	Т
Plaice	Pleuronectes platessa	VIIa/VIIe/VIIfg	L	L	Т	Т			Т	Н
Saithe	Pollachius virens	Va/Vb/IV, IIIa, VI/ VII, VIII	Т	Т	Т	Т			Т	Т
Wreckfish	Polyprion americanus	X	Т	Т	Т	T			Т	П

č		A (C.t1).	Growth	Growth Data	Maturit	Maturity Data	Fecundity	ndity	Sex ratio	atio
Species	S	Area/Stock	Length	Weight	Length	Age	Length	Age	Length	Age
Blond ray	Raja brachyura	all areas	Τ	T	T				Τ	
Thomback ray	Raja clavata	all areas	Т	Т	Т				Т	
Spotted Ray	Raja montagui	all areas	Н	Н	Н				L	
Cuckoo ray	Raja naevus	all areas	Ε	L	L				L	
Other rays and skates	Rajidae (*)	all areas	Т	Т	Т				Т	
Greenland halibut	Reinhardtius hippoglossoides	V, XIV/VI	Н	Н	Н	Н			Н	H
Sardine	Sardina pilchardus	VIIIabd/VIIIc, IXa	Н	Н	Н	Н	Н	Т	Н	F
Spanish mackerel	Scomber japonicus	VIII, IX	Т	Т	Т	Т			Т	H
Mackerel	Scomber scombrus	II, IIIa, IV, V, VI, VII, VIII, IX	Т	L	L	Т	T	Т	T	H
Mackerel	Scomber scombrus	VIIIc, IXa	Н	Н	Н	Н	H	Н	Η	H
Redfish	Sebastes spp. (*)	V, VI, XII, XIV	Τ	T	T	Т			Τ	T
Cuttlefish	Sepia officinalis	VIIIc, IXa	Τ	Τ	Τ				Т	
Sole	Solea solea	VIIa/VIIbc/VIIe/ VIIfg/VIIhk/VIIIab/ IXa	П	Τ	Τ	Т			L	
Sea bream	Sparidae (*)	VIIIc, IXa, X	Т	Т	Т	Т			Т	Т
Blue jack mackerel	Trachurus picturatus	×	Τ	Т	Т	Т			Т	Τ

C		A 1.	Growt	Growth Data	Maturit	Maturity Data	Fecundity	ndity	Sex ratio	ratio
Species	S	Area/Stock	Length	Weight	Length	Age	Length	Age	Length	Age
Horse mackerel	Trachurus trachurus	IIa, IVa, Vb, VIa, VIIa-c, c-k, VIIIabde/VIIIc, IXa/X	T	Т	T	H	Т	T	Т	T
Pouting	Trisopterus luscus	VIIIc, IXa	Т	Т	Т	Н			Т	Е
		M	Mediterranean	an						
Eel	Anguilla anguilla	all areas	Т	Т						
Giant red shrimp	Aristeomorpha foliacea	1.3, 2.2, 3.1	Т	Т	Т				Т	
Red shrimp	Aristeus antennatus	1.1, 1.3, 2.2, 3.1	Т	Т	Т				T	
Bogue	Boops boops	1.3, 2.1, 2.2, 3.1	Τ	T	Τ	Τ			T	Т
Dolphinfish	Coryphaena spp. (*)	all areas	Т	Т	Т	Т			Т	Τ
Seabass	Dicentrarchus labrax	1.2	Т	Т	Т	Т			T	Η
Horned octopus	Eledone cirrhosa	1.1, 1.3, 2.1, 2.2, 3.1	Т	Т	Т				T	
Musky octopus	Eledone moschata	1.3, 2.1, 2.2, 3.1	Т	Т	Т				T	
Anchovy	Engraulis encra- sicolus	all areas	Т	T	Т	Τ			T	Τ
Grey gurnard	Eutrigla gurnardus	1.3, 2.2, 3.1	Τ	T	Τ	Τ			Т	Τ

		· · · · · · · · · · · · · · · · · · ·	Growtl	Growth Data	Maturity Data	y Data	Fecundity	ndity	Sex ratio	atio
Species	s	Area/Stock	Length	Weight	Length	Age	Length	Age	Length	Age
Squid	Illex spp. (*), Todarodes spp. (*)	1.3, 2.1, 2.2, 3.1	Т	Т	Т				T	
Billfish	Istiophoridae (*)	all areas	Г	Т	Т	T			L	Т
Common squid	Loligo vulgaris	1.3, 2.2, 3.1	⊢	⊢	⊢				⊣	
Black-bellied angler	Lophius budegassa	1.1, 1.3, 2.2, 3.1	Н	Н	Н	Н			Н	H
Anglerfish	Lophius piscatorius	1.1, 1.3, 2.2, 3.1	Н	Т	Н	Т			Н	Н
Hake	Merluccius merluccius (*)	1.1, 1.2, 1.3, 2.1, 2.2, 3.1	Н	Н	Т	Т			L	H
Grey mullet	Mugilidae (*)	1.3, 2.1, 2.2, 3.1	T	Т	Т	Т			Т	Т
Red mullet	Mullus barbatus	all areas	T	Т	Т	Τ			L	Т
Striped red mullet	Mullus surmuletus	all areas	Н	Н	Т	Т			L	H
Norway lobster	Nephrops norvegicus	1.3, 2.1, 2.2, 3.1	S	S	S				T	
Common octopus	Octopus vulgaris	all areas	T	Т	Т				T	
Pandora	Pagellus erythrinus	1.1, 1.2, 2.1, 2.2, 3.1	Т	Т	Т	Т			T	Н
White shrimp	Parapenaeus longirostris	1.1, 1.3, 2.2, 3.1	Т	Т	Т				T	
Caramote prawn	Penaeus kerathurus	3.1	Τ	Т	T				T	
Picarels	Spicara maris	3.1	Т	Т	Т	Т			Т	Т

C		A (C.t).	Growt	Growth Data	Maturity Data	y Data	Fecundity	ndity	Sex ratio	ratio
Species	S	Area/Stock	Length	Weight	Length	Age	Length	Age	Length	Age
Thornback ray	Raja clavata	1.3, 2.1, 2.2, 3.1	T	T	Т				T	
Brown ray	Raja miraletus	1.3, 2.1, 2.2, 3.1	Τ	T	Т				T	
Atlantic bonito	Sarda sarda	all areas	Τ	L	Т	T			Г	⊣
Sardine	Sardina pilchardus	all areas	T	Н	Н	Т			Н	Н
Mackerel	Scomber spp.	1.3, 2.2, 3.1	Τ	L	Т	T			L	L
Sharks	Shark-like Selachii (*)	all areas	Т	Т	Н	Т			Н	Н
Cuttlefish	Sepia officinalis	1.3, 2.1, 3.1	Τ	T	Т				T	
Sole	Solea vulgaris	1.2, 2.1, 3.1	T	T	Т	Τ			T	T
Gilthead sea bream	Sparus aurata	1.2, 3.1	T	T	Т	Т			Τ	Τ
Picarels	Spicara spp. (*)	1.3, 2.1, 2.2, 3.1	T	T	Т	Т			T	Τ
Mantis shrimp	Squilla mantis	1.3, 2.1, 2.2	T	T	Т				T	
Albacore	Thunnus alalunga	all areas	Т	Т	Н	Т			Т	Н
Bluefin tuna	Thunnus thynnus	all areas	T	Τ	Т	Τ			T	Τ
Mediterranean horse mackerel	Trachurus medi- terraneus	1.1, 1.3, 3.1	T	T	Т	Т			Т	Η
Horse mackerel	Trachurus trachurus	1.1, 1.3, 3.1	Τ	T	Т	Т			Τ	П
Tub gumard	Trigla lucerna	1.3, 2.2, 3.1	Τ	Τ	Т	Т			T	Τ
Clams	Veneridae (*)	2.1, 2.2	Т	Т	Т				Т	

		Ş	Growt	Growth Data	Maturit	Maturity Data	Fecundity	ndity	Sex ratio	ratio
Species	S	Area/Stock	Length	Weight	Length	Age	Length	Age	Length	Age
Swordfish	Xiphias gladius	all areas	Т	T	Т	Τ			Т	Τ
			NAFO areas	as						
Cod	Gadus morhua	2J 3KL	⊢	L					Η	
Cod	Gadus morhua	3M	⊢	⊢	⊢	T			Η	Н
Cod	Gadus morhua	3NO	⊢	L	Ε	Т			Н	⊢
Cod	Gadus morhua	3Ps	Т	T	Т	T			L	Т
Cod	Gadus morhua	SA I	Т	Τ	Т	T			T	Т
Witch flounder	Glyptocephalus cynoglossus	3NO	H	Н					Н	
American plaice	Hippoglossoides platessoides	3LNO	L	T	Т	T			Т	Н
American plaice	Hippoglossoides platessoides	ЗМ	Т	Т	Т	T			Т	Η
Yellowtail flounder	Limanda ferruginea	3LNO	Т	T					П	
Grenadiers	Macrouridae (*)	SA 2 + 3	Τ	T	Т	I			T	Τ
Pandalid shrimp	Pandalus spp. (*)	зм	H	Т	Н				Н	
Skates	Raja spp. (*)	SA 3	Т	Т					Г	
Greenland halibut	Reinhardtius hippoglossoides	3KLMNO	Т	Т	Т	Τ			T	Т
Greenland halibut	Reinhardtius hippoglossoides	1D	Τ	Т	Т	Τ			T	T

c		, , , , , , , , , , , , , , , , , , ,	Growth	Growth Data	Maturit	Maturity Data	Fecundity	ndity	Sex ratio	ratio
Species	s	Area/Stock	Length	Weight	Length	Age	Length	Age	Length	Age
Redfish	Sebastes spp. (*)	3M	⊢	Ш					Ε	
Redfish	Sebastes spp. (*)	3LN	⊢	⊢						
Redfish	Sebastes spp. (*)	30	⊣	Н						
Redfish	Sebastes spp. (*)	SAI	⊢	⊢						
	H	Highly migratory species, Atlantic, Indian, Pacific Oceans	s, Atlantic	c, Indian,	Pacific Oc	eans				
Frigate tunas	Auxis spp. (*)		L	Н	L	Η			Н	H
Atlantic back skipjack	Euthynnus alleteratus		Н	Н	Н	Т			Н	Н
Billfish	Istiophoridae (*)		H	Н	Т	Т			Н	H
Short-fin mako	Isurus oxyrinchus		H	Н	Т				Н	
Skipjack tuna	Katsuwonus pelamis		H	Н	Т	Т			Г	F
Porbeagle	Lamna nasus		Т	T	Т				T	
Blue shark	Prionace glauca		Т	T	Т				T	
Atlantic bonito	Sarda sarda		T	T	T	Τ			T	Т
Sharks	Squalidae (*)		Т	T	Т				T	
Albacore	Thunnus alalunga		Т	T	Т	Т			Τ	Т
Yellowfin tuna	Thumus albacares		Т	Τ	Т	Т			T	Τ
Bigeye tuna	Thunnus obesus		Т	T	Т	Т			T	Т

			Growt	Growth Data	Maturit	Maturity Data	Fecundity	ndity	Sex	Sex ratio
Species		Area/Stock	Length	Weight	Length	Age	Length	Age	Length	Age
Bluefin tuna	Thunnus thynnus		T	T	Τ	Τ			T	Τ
Swordfish	Xiphias gladius		Т	Т	Τ	Τ			T	Т
		CE	CECAF FAO 34	34						
Black scabbardfish	Aphanopus carbo	Madeira	Н	Н	Т	Т			Т	Е
Anchovy	Engraulis encra- sicolus		L	L	Т	Т			Т	Т
Common squid	Loligo vulgaris	Atlantic EC	Т	Т	Т				Т	
Hake	Merluccius spp. (*)	Atlantic EC	Т	Т	Т	Т			Т	Τ
Common octopus	Octopus vulgaris	Atlantic EC	Т	Т	Т				Т	
Deepwater rose shrimp	Parapeneus longirostris	Atlantic EC	Т	Т	Т				Т	
Southern pink shrimp	Penaeus notialis	Atlantic EC	Τ	Τ	Τ				T	
Sardine	Sardina pilchardus	Atlantic EC	T	T	Τ	Τ			T	L
Bonito	Sarda sarda	Mauritania	Т	Т	Т	Т			Τ	Т
Round sardinella	Sardinella aurita	Mauritania, Atlantic EC	L	L	Т	Т			T	Η
Short-body sardinella	Sardinella maderensis	Mauritania, Atlantic EC	Т	Т	Т	Т			Т	Τ
Chub mackerel	Scomber japonicus	Madeira, Mauritania	Т	Т	Т	Т			T	Τ

2000		A soot Stools	Growth Data	ı Data	Maturit	Maturity Data	Fecundity	ndity	Sex ratio	atio
aroado	o.	Alea Slock	Length	Length Weight Length	Length	Age	Length	Age	Length	Age
Cuttlefish	Sepia hierredda Atlantic EC	Atlantic EC	Т	Т	Τ				T	
Horse mackerel	Trachurus spp. (*)	Madeira	Т	Т	Т	Т			Τ	Т
			WECAF							
Red snapper	Lutjanus purpureus	French Guiana EEZ	Т	Т	Т	Т			T	T
Penaeus shrimp	Penaeus subtilis	French Guiana EEZ	Т	Т	Т				T	
(*) Each present species in a	particular area should be considered separately.	e considered separately.								

## Appendix XVII (section J)

## Economic information per fleet segment as defined in Appendix III (MP)

General description	Extended programme First priority (annual)
Income (turnover)	Total and per species
Production costs:  — crew (include social cost)  — fuel  — repair and maintenance  — other operational costs	Total and per production cost category
Fixed costs	Average cost, calculated from investment
Financial position	Share of own/foreign capital
Investment (asset)	
Prices/species (*)	Value, tonne
Employment	Full time/part time/FTE
Fleet	<ul> <li>No</li> <li>gt</li> <li>kW</li> <li>age</li> <li>gear used</li> </ul>
Effort	Relevant unit accounting for technology and time

## Appendix XVIII (section J)

## Data needs for basic economic evaluation per fleet segment (EP)

General description	Extended programme Second priority
Landings per species	Seasonal (monthly) Stock (by ICES areas) Market category Regional differentiation (level 3, Appendix I)
Income (turnover)	Subsides (annually) Regional differentiation (level 3, Appendix I)
Production costs:  — crew  — fuel  — repair and maintenance  — other operational costs	Further subdivision of operational costs Regional differentiation (level 3, Appendix I) Differentiation of remuneration to crew according to position
Fixed costs	Regional differentiation (level 3, Appendix I)
Financial position	Rents to external institutions Regional differentiation (level 3, Appendix I)
Investment (asset)	By type of investment: hull of vessel, various engines and refrigeration/ freezing, storage and lifting equipment
Prices/species	Monthly By market category Regional differentiation (level 3, Appendix I)
Employment	Skill/education Distinction per vessel size, regional differentiation
Fleet	Size categories of fleet segments regional differentiation (level 3, Appendix I)
Effort	Regional differentiation (level 3, Appendix I)

## Appendix XIX (Section K)

## Economic information per primary and secondary industry (sectors) (MP)

General description	Minimum programme First priority (annual)
Raw material	Total and per species (tonnes)
Income (turnover)	Total and per product
Production costs:  — labour	Total and per category cost
— energy  — raw material (value)  — packaging	
— other running costs  Fixed costs	Average costs, calculated from investment
Financial position	Share of own/borrowed capital
Investment (asset)	<ul><li>— Historical</li><li>— Replacement</li><li>— Insurance</li></ul>
Prices/product	Value, tonne
Employment	Numbers/ FTE
Capacity utilisation	Annual average