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EU Council Regulation 1543/2000

*Establishing a Community framework for the
Collection and Management of the Data
needed to conduct the CFP*

National Programme 2005 IRELAND

(Version 2)

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Special Note

The Irish response to EU Council Regulation 1543/2000 (*establishing a Community framework for the collection and Management of the data needed to conduct the CFP*), is co-ordinated by the Department of the Communications, Marine and Natural Resources (DCMNR).

This document represents the National Programme for Ireland 2005 (*Version 1 – May 2005*) and is submitted by the Marine Institute who are charged by DCMNR with the implementation of the *module on evaluation of inputs: fishing capacities and fishing effort and the module of evaluation of the catches and landings* as defined in the Application regulation of EU Council Regulation 1543/2000.

The DCMNR have charged An Bord Iascaigh Mhara (BIM) with the collection of data related to the Module for the evaluation of the economic situation of the sector (J - Collection of economic data by groups of vessels and K - collection of data concerning the processing industry).

This document has been compiled following the guidelines in EU Commission Regulation 1639/2001 (*establishing the minimum and extended Community programmes for the collection of data in the fisheries sector and laying down detailed rules for the application of EU Council Regulation (EC) 1543/2000*).

This version incorporates comments made by National Programme evaluators and previous comments made by the STECF in 2003 and 2004.

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Introduction and Background

This document describes the Irish National Programme for the collection of data in the fisheries sector under EU Council Regulation 1543/2000 (*establishing a Community framework for the collection and Management of the data needed to conduct the CFP*).

The Irish National Programme will be conducted in close co-operation between three organisations in Ireland;

- **Department of Communications Marine and Natural Resources (DCMNR)**
DCMNR is the main governmental department with responsibility for sea fisheries policy, management, control and enforcement.
- **The Marine Institute (MI)**
The MI is a semi state marine research organisation charged by DCMNR with the collection of scientific data on the fisheries sector.
- **An Board Iascaigh Mhara (BIM – The Irish Sea Fisheries Board)**
BIM is a semi state sea fisheries development agency charged by DCMNR with the collection of economic data on the fisheries sector.

Primary data collected under the Irish Programme are stored in the following databases;

Vessel Register – DCMNR – Fleet details including Capacity (IFIS)
Logbook Database – DCMNR and MI – Catches and Effort data (IFIS)
Age and Length of Catches – MI – Landings and Discards data (Age and Length) (STOCKMAN)
Surveys Database – MI – Catch Compositions (Various ACCESS Data Bases)
Biological Databases – MI – Biological parameters (ACCESS Data Base)
Economic Data – BIM – Economic Data (To Be Developed by BIM)

All data collected under the Data Collection Regulation are inputted to these various databases. Access to the data is limited to authorised staff and nobody outside the organisations listed above has access to the data.

At a meeting of European Fisheries Laboratories in Lisbon in May 1992, concern was expressed about the continuity of stock assessment programmes in member countries. As a result of reduced national funding, many fisheries laboratories had scaled down their sampling programmes or were planning reductions in the near future. The EU recognised that any reduction in the provision of data for stock assessment would have serious implications for the quality of the scientific and management advice needed to conduct the Common Fisheries Policy. In order to address this problem DGXIV prepared several ‘calls for proposals’ (Study Contracts) in this area and a number of projects were funded with the objective of achieving improvements in data collection for stock assessment.

Ireland is on the western edge of the EU and is surrounded by the most productive fishing grounds in EU waters. The Marine Institute’s Fisheries Science Services (FSS) monitor, assess, research and advise on the marine fisheries resource in the waters

around Ireland. FSS monitor some 35 demersal and pelagic stocks and provide data to and participate in the following ICES Groups;

- Northern Shelf Working Group
- Southern Shelf Working Group
- Hake monk and megrim Working Group
- Herring Working Group
- Mackerel and Horse Mackerel Working Group
- Blue Whiting Working Group
- International Bottom Trawl Survey Working Group
- Deep Water Working Group
- Cephalopod Working Group
- *Nephrops* Working Group
- Mackerel Egg Survey Working Group
- Mackerel Egg Survey Planning Group
- Elasmobranch Study Group
- Discard Study Group
- Crab Study Group
- Planning Group on Commercial Catch, Discards and Biological Sampling
- Sea Bass Study Group

(* *ICES Assessment Working Group are end users of data collected under the DCR. However, participation at these Working Groups is **not funded** under the Data Collection Regulation*).

FSS also participate annually at the STECF, ACFM, ICCAT and at various *ad-hoc* meetings called by the Commission (DG XIV). There are currently 3 recovery plans operating in the waters off Ireland and the provision of appropriate data to evaluate these recovery plans will have a high priority.

Since 1994, Ireland has allied itself with several strategic fisheries laboratories along the Atlantic coast and have successfully sourced DGXIV funding to supplement the collection and management of fisheries data. These partners are UK (Aberdeen and Lowestoft) France, Spain and Portugal. These partners now rely on EU funding to conduct annual sampling, data management and analysis programmes relating to the assessed and non assessed fish stocks in western EU waters.

A Study Contract 94-013 (Improvements of data collection for stock assessment in ICES Sub Areas VI, VII, VIII, IX and X) was funded by DGXIV over the period January 1995 to 1998. This was followed by EU Study Contract 97-059 (Providing a framework to Improve the assessment of the main demersal and pelagic species in western European waters, FIEFA). The FIEFA project finished in January 2000 . A Study Contract 99-099 (Sampling of fish stocks in western EU waters SAMFISH) was funded in February 2000 and finished in January 2002.

Since 1994, FSS have participated in over 14 EU Study Contract proposals. FSS co-ordinated the FIEFA project (EU Study Contract 97-059). The Study Contract funding mechanism will now be replaced by the funding mechanism provided under the EU Regulation 1543/2000.

Special Note on Personnel Costs and Working Hours

The personnel grades with associated average salaries (annual, monthly) are shown in Appendix V. This gives the projected mean annual salary per grade in 2005. This includes social insurance contributions, special government increases in 2004 (BENCHMARKING and SUSTAINING PROGRESS) and normal annual incremental increases. No overheads are included in these costings. These figures are used in the budget estimates for 2005.

For the purposes of the budget calculations the number of days worked per year is 220. The number of days worked per week is 5 and the number of days worked per month is 20.

Sea Allowances, daily allowances, overnight subsistence, mileage rates, foreign travel rates are those set out by the Irish Government under various Department of Finance Regulations and are used by the Marine Institute and An Bord Iascaigh Mhara.

In 2004, the Organisation of Working Time Act (OWT) came into force within the Marine Institute and BIM. Personnel engaged in the DCR work programme must not work in excess of an average of 48 hours over a 3 month period. The normal working week is 38 hours per week. These figures have been used in the estimation of man hours and costings in the 2005 National Programme for Ireland.

Module of evaluation of inputs: fishing capacity and fishing effort

C Collection of data concerning fishing capacities

Minimum Programme

In Ireland the collection of data concerning fishing capacity is the responsibility of the Department of Communications, Marine and Natural Resources (DCMNR). Irish vessels that undertake commercial fishing activities are registered with the DCMNR. The vessel register is a computerised database which includes details such as;

- Vessel type (e.g. trawler, beam trawler)
- Vessel Age
- GRT, Length, width and draught
- Engine Power

The information in the vessel is registered according to Regulation (EC) No. 2930 and No 2090/98. The vessel register is updated continuously and is held by the Department of Communications Marine and Natural Resources.

Parameters

For the minimum programme, data will be collected in order to assess the average value per vessel of ;

- the gross tonnage
- maximum continuous engine power actually developed by the main engine expressed in kW (as per Council Regulation 2930/86)
- the age of the vessel calculated on the basis of the age of the hull

Disaggregation Levels

The disaggregation level will comply with the segments as defined in Appendix III of Commission Regulation (EC) No 1639/2001.

- Mobile gears Beam Trawl
 Demersal Trawl and Demersal Seiner
 Pelagic Trawl and Seinners
 Dredges
 Polyvalent
- Passive Gears Hooks
 Drift and fixed nets
 Pots and traps
 Polyvalent
- Polyvalent Gears Combined mobile and passive gears

These data will be provided for vessels.

- <12m
- 12 to <24m
- 24 to <40m
- >40m

These data will be updated annually.

These data sets will be transferred to, aggregated at the appropriate level and analysed by the Marine Institute. This will be reported in the Technical report for 2005.

Precision Levels

Data on fishing capacity for all active Irish fishing vessels, on an aggregated level by segment, as described in Appendix III of Commission Regulation 1639/2001 will be collected exhaustively by DCMNR.

Extended Programme

No data collection will be carried out within the framework of the extended programme during 2005.

Module of evaluation of inputs: fishing capacity and fishing effort

D Collection of data related to fishing effort

The EC regulation on logbooks and the implementation of control regulations concerning the Common Fisheries Policy (CFP) require all vessels greater than 10 meters, used for commercial fishing to carry and complete a logbook of fishing activity. The information contained in the logbook includes;

- Vessel name, number and skipper
- Departure and arrival date and times,
- Gear Type deployed
- Species and weight caught (kgs)
- Fishing grounds, ICES division and ICES rectangle
- Fishing days

The information in the logbooks is registered according to the provision of Commission Regulation (EC) No 2807/83 and No 2847/93.

The logbook data are collated by the Department of Communications Marine and Natural Resources and kept on a digital database at DCMNR.

Minimum Programme

Parameters

(i) Information on fuel consumption will be collected as part of the minimum programme on the economic evaluation. Ireland will seek funding under the economic evaluation in 2005 (see Section JK and Appendix III).

(ii) The Marine Institute routinely conduct analyses of the DCMNR logbook data for use in the stock assessment process. The MI produce annual Irish quarterly fleet activity maps for each ICES statistical rectangle. Data on fishing effort (days or hours fished) on an aggregated level, by segment, as described in Appendix 1 and Appendix VIII of Commission Regulation 1639/2001.

Fishing effort data will be weighted by the measuring unit related to the nominal fishing power of each vessel (Kw or GT) as defined in Appendix V.

(iii) Specific Fishing effort will be collected for those stocks of special interest where the catches kept on board exceed certain thresholds listed in Appendix VI of Commission Regulation (EC) No 1639/2001.

Ireland will ensure that that these effort indices are in line with those required by the ICES stock assessment working groups.

Disaggregation Levels

Fishing effort indices will be collected according to the fishing techniques defined in Appendix VIII, on a quarterly basis by ICES Division.

Precision

Catch and effort data from the EU logbooks are collected exhaustively by DCMNR (census). It is not necessary to carry out a sampling programme for fishing effort by technique for any Irish fleet segments > 10 m.

In 1995, a pilot sampling programme for vessels <10m will be carried out in selected areas to establish fishing effort of vessels <10m following the requests by the STECF. Since vessels <10m are not obliged to fill in EU logbook forms, there is little information on the activity of these vessels.

The pilot programme will collect data on

- Vessel name, number and skipper
- Departure and arrival date and times,
- Gear Type deployed
- Species and weight caught (kgs)
- Fishing grounds, ICES division and ICES rectangle

The pilot programme is completely dependent on receiving the co-operation and goodwill of participating skippers. The 2003 and 2004 pilot programmes did not receive full industry co-operation but the lessons learned will be used in the 2005 pilot survey. The 2005 programme will involve skipper interviews, trial logbook forms and travel to the ports by a sub contracted scientists who has a good standing with industry.

The pilot programme will try to deliver a precision level of 3 (plus or minus 5% for a 95% confidence level).

Extended Programme

Ireland will not undertake the extended programme in 2005.

Module of evaluation of the catches and landings

E Collection of data related to catches and landings

The Department of Communications Marine and Natural (DCMNR) resources collect statistics related to the landings of commercial fish species.

Ireland currently assesses the commercial catches, including discards, of the stocks from the north-east Atlantic listed in Annex XII of the Application of Regulation 1543/2000.

Landings are currently provided by species, by quarter, by gear, by ICES Division and by ICES rectangle, based on information supplied in the EU Logbooks (level 4 as per Appendix 1 of Commission Regulation 1639/2001). These data are collected exhaustively (census) by DCMNR. This information is highly confidential and only used in an aggregated format for stock assessment purposes.

Ireland will provide catch data on its only recreational fisheries, that for bluefin tuna. This fishery is still being developed and remains a small scale, short seasonal fishery of about 3 months in late summer.

Ireland has provided a table of the live/gutted weight conversion factors that are applied to gutted fish landings (see below).

Ireland has carried out a discard monitoring programme since 1994 under various EU Study contracts. Discards are monitored for the stocks in Annex XII of the Commission Regulation 1639/2001 and estimates of the average volume of annual catches (landings and discards) by weight, per three year period, by type of technique defined in Appendix III, will be provided with the aim to achieve the required precision.

Annual discard estimates will be produced for haddock, whiting, herring, hake, plaice (VIIa; VIIe-g), mackerel (VIIId, IV). Annual discard data are also collected for many other stocks and data have been made available for inclusion in international stock assessments (e.g. ICES Discard Working Group).

In 2005, catch and landings data will also be collected for fleets (fisheries) in order to comply with requests from STECF and ICES.

Minimum Programme

Ireland will meet the requirements of the Minimum Programme in 2005.

Ireland will carry out a pilot programme in 2005 to estimate the catch and landings from vessels < 10 m. This pilot programme has been costed in Module D.

Extended Programme

Ireland will not undertake further collection of data in 2005 to fulfil the Extended Programme for E.

Ireland - Conversion factors for fish species landed gutted

Species	Conversion Factor
Pouting	1.12
Blue Ling	1.15
Brill	1.05
Catfish	1.18
Codling	1.18
Rabbit Fish	1.12
Cod	1.18
Conger Eel	1.125
Dabs	1.05
Flounder	1.05
Other Flatfish	1.05
Other Demersal	1.1
Greater Forkbeard	1.125
Haddock	1.16
Halibut	1.05
Hake	1.12
John Dory	1.125
Lemon Sole	1.04
Megrim	1.05
Ling	1.12
Monk/Angler	1.28
Plaice	1.05
Saithe	1.18
White Pollock	1.14
Redfish	1.1
Ray / Skate	1.15
Slip Sole	1.05
Common Sole	1.05
Sand Sole	1.125
Grenadier	1.12
Turbot	1.05
Tusk	1.13
Whiting	1.12
Witch	1.05

Ireland - Conversion Factors for fish species landed tailed

Species	Conversion Factor
Monk/Angler	3.0
Nephrops	3.0

All other species are landed whole

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

Minimum Programme

Ireland submitted a report to the Commission on 31st December 2002. This report outlined the utility of the detailed catch and effort data from Irish fishing vessels, which have been used during the years 1995 to 2000 by scientific assessment Working Groups.

This report was evaluated by the STECF in early 2003. STECF recommended eligibility under the MP for all CPUE series that have been used in stock assessment at any time from 1995 onwards. STECF recommended eligibility for the Irish CPUE series for VIIa, b, c, h, j, k, otter trawlers and Nephrops in FU 15. Extended programme eligibility was recommended for Irish CPUE series for VIa otter trawlers, VIIhjk beam trawlers. STECF also recommended that CPUE series for deep water species be included in the MP whether or not these data are used in stock assessment.

In 2005, Ireland will continue to build an update the various CPUE and /or specific effort of specific commercial fleets ('tuning files') for use in stock assessment by various working groups.

The work associated with this module is very closely related to work of Module E and the small personnel costs have been included in the Module E budget.

Extended Programme

Ireland will not undertake any work in relation to the requirements of the Extended Programme during 2005.

G Eligibility of the scientific evaluation surveys of stocks

Minimum programme

Ireland meets the criteria of the minimum programme for research surveys (i.e. 'priority 1' surveys as indicated in Appendix XIV of Commission Regulation No 1639/2001).

Ireland, in accordance with EU Commission Regulation 1543/2000, has and continues to play a key role in several projects concerned with international standardisation and co-operation in research surveys. Such EU Study Contracts projects have included FEIFA (EU Study Contract 97-0059), SAMFISH (EU Study Contract 99-0099), and particularly the IPROSTS project (EU Study Contract 98-057). Ireland is also an active member of the ICES IBTS and since 1998, have been international co-ordinators for surveys in western waters (northern area).

In 2005, it is envisaged that five surveys with "Priority 1" status will be conducted by the Marine Institute. These are

- i) Western IBTS Fourth Quarter
- ii) Spawning/Pre Spawning Herring Acoustic Surveys
- iii) EU Atlanto/Scandian Herring and Blue Whiting Acoustic Survey
- iv) International Blue Whiting Spawning Area Acoustic Survey
- v) Deep Water Trawl Surveys in VII and VI

The proposed grids for surveys i), ii) and iii) are shown in Figures 1 to 3.

i) Western IBTS 4th Quarter

Ireland remains actively involved in the IBTS quarter 4 groundfish survey of western waters and are currently international survey co-ordinators for western waters since 1998, co-ordinating surveys between UK(Scotland), UK (Northern Ireland) and UK (England and Wales), Ireland, Spain and France within the ICES IBTS umbrella. Areas covered by Ireland in this survey are VIa (south), VIIa, VIIb, VIIg, and VIIj.

The western IBTS 4th quarter groundfish surveys are designed to comply with the protocols set out in the ICES IBTS Protocols Manual. Irish survey data are held on a Microsoft Access data base. The data collected are reported to the appropriate working groups and used in assessments.

The survey effort and sampling design will generally be in continuity with the previous survey design. However, the experience gained in 2003 running the survey aboard the RV *Celtic Explorer* for the first time will be used to make some minor modifications and improvements to the survey design. Expected modifications involve:

- Revision of the survey stratification, and,
- Slight modifications of the trawl configuration used in western waters (to be done with the agreement of the ICES IBTS Working Group).

These modifications are intended to reduce the variability in the survey data and hence increase the quality and utility of the results. An improvement in the quality of survey incides for cod and flatfish, in particular, is expected.

ii) Spawning/Pre Spawning Herring Acoustic Surveys

Prior to 2004, Ireland has contracted out part of the work for the acoustic survey programme to SeaBed Surveys International (SSI). These surveys were carried out on chartered commercial vessels. This company provides acoustic expertise in using the acoustic equipment (Simrad EK 60 + towed body) to carry out three annual acoustic surveys with Marine Institute staff. SSI also carry out the post processing of the survey data and report the survey results to the Marine Institute.

The MI plans to strengthen its acoustic staff in-house and carry out most of the acoustic work programme. While the cost of the SSI contract is included in the 2005 budget, it is envisaged that the Marine Institute will scale down this contract in 2005. However, at this point the cost implications are not entirely clear.

Northwest Herring Acoustic Survey

Survey protocols are carried out in accordance with the procedures outlined in the ICES PGHERS.

Areas covered are Divisions VIa south, VIIIb,c (Figure 2).

Traditionally, two surveys were conducted annually using chartered commercial vessels to cover the autumn and winter spawning components. In 2003, a review of the acoustic survey program relating to this stock was undertaken with the help of two Norwegian experts. It was then decided that only one acoustic survey should be carried out on this stock in the future. Work is continuing to determine the optimal time of year to survey this stock, but at present it is conducted in the first quarter.

A survey was carried out on this stock in quarter one (12th February – 1st March) 2003, using a chartered commercial vessel. In 2004, the RV *Celtic Explorer* was employed for the first time. This survey was carried out in quarter one (7th – 25th January) 2004.

Surveys are timed to coincide with the peak spawning period of this stock. The use of the *Celtic Explorer* as the primary survey platform has allowed much more detailed investigations to be carried out relating to the biology and habitat of this stock. Detailed multibeam seabed mapping of known spawning grounds and the spawning beds within these grounds is one of the new aspects of this survey program.

Celtic Sea Herring Acoustic Survey

Survey protocols are in accordance with the procedures outlined in the ICES PGHERS. Areas covered are Divisions VIIj,g and VIIa south (Figure 2).

In 2004 the Marine Institute acoustic surveys were transferred to the new RV *Celtic Explorer* with latest acoustic equipment (keel mounted Simrad EK 60, with four operating frequencies). The first Celtic Sea survey to employ the new vessel is due to take place in quarter four (22nd November- 10th December) 2004, to coincide with the peak spawning period of the stock components.

In 2005, the ICES Planning Group for Herring Surveys will convene a workshop on scrutinisation of echograms. This workshop will deal with echograms of the Celtic Sea herring. Ireland intends to send two scientists to this meeting, one from the Seabed Surveys International Consultancy company, and one Marine Institute staff member. This workshop will provide an essential opportunity to harmonise the transfer of knowledge from that company to the Marine Institute, now that the latter organisation intends to both develop MI staff expertise and conduct these surveys in-house. This exercise will be organised to deal with a general recommendation of the ICES Herring Assessment Working Group, that the time series of Celtic Sea surveys be re-examined.

iii) Atlanto/Scandian Herring and Blue Whiting Survey

In 2004, Ireland participated in this new EU survey. Ireland provided two members of staff for one half of the survey and contributed to the ship costs also. The Irish contribution was concomitant with the Irish share of the EU quota. Coordination is made together with Norway, Iceland, the Faeroe Islands and Russia. The ICES coordination meeting will be held in Murmansk in late August 2004. Ireland will participate at this meeting.

In 2005, Ireland will again participate in this survey. Two members of staff will be provided for one half of the survey. In addition, Ireland will make a contribution to the ship time costs.

iv) International Blue Whiting Spawning Area Survey

This survey takes place in March/April to the west of Ireland and Scotland and has traditionally been conducted by Norway. It is the only survey currently used in tuning the blue whiting stock assessment. In 2004, Russia, the Netherlands and Ireland also participated, thus beginning a new international blue whiting survey series. The survey planning will be dealt with by ICES PGNAPES, taking place in Murmansk, Russia, in late August 2004.

At present, this survey does not have priority 1 status. However, there are indications from recent meetings within the Commission that priority 1 status will be given to the survey in the near future. The various EU member states have discussed how best to carry out this survey, should it be given priority 1 status in 2005. At present, two research vessels, RV *Tridens* (the Netherlands) and RV *Celtic Explorer* (Ireland) are available to conduct the survey. It is not possible at this time to ascertain whether both vessels will participate, alternate vessels conduct the survey in alternate years, or the same vessel conducts the survey in all subsequent years. This matter and other issues can best be decided at the DCR Regional Coordination meeting for western waters, taking place in September. Given these uncertainties, Ireland submits costings for the entire survey, being conducted by Ireland on the RV *Celtic Explorer*. Depending on the final decision, it will probably be necessary to reduce these costings, allowing for participation of other MS' staff and/or research vessels.

v) Deep Water Trawl Surveys

Ireland conducted a deep water trawl and longline survey on the continental slopes of Sub Area VII and VI during the 1990's. These surveys will form a valuable baseline data set on the deep water fish assemblages and produced a number of publications on the life

history, discarding and catch composition of the deep water fisheries in the area. Given the lack of information on these species and the continued high exploitation on the stocks, a deep water survey should be carried out in 2005. UK Scotland carry out a bi annual survey in Sub Area VI. A similar survey should be carried out in Sub Area VII to cover the range of the fishery in VI and VII. The proposed survey would take place on the continental slope over a 14 day period in March. Trawl positions are available from commercial and non commercial areas.

It is unclear whether a deep water trawl survey will be funded under the DCR as a priority 1 in 2005. The Ireland National Programme includes such a survey in the event that such a survey becomes eligible for funding.

Extended programme

Ireland will seek funding under the extended programme for two surveys designated as “Priority 2” status as indicated in Annex XIV of EU Commission Regulation 1543/2000. These surveys are

- i) Juvenile Plaice Survey (Division VIIa);
- ii) *Nephrops* Survey (Nephrops Ecology in Divisions VIIa)

The proposed grids for surveys i) and ii) are shown in Figures 4 to 5.

Juvenile Plaice Survey (Division VIIa)

The Irish Marine Institute (and its predecessors) have conducted annual surveys of juvenile plaice in the Irish Sea since 1976. The survey had been carried out on the same vessel (F.V. *Sealgair*) and by the same skipper since the programme commenced in 1976. However in 1996 the F.V. *Sealgair* was sold and the survey was transferred to the F.V. *Lough Swilly*. The survey has been conducted on the F. V. *Lough Swilly* from 1996 to 2002. The same station positions are used every year (allowing for some minor adjustments to station positions from year to year to avoid unforeseen obstacles (eg. whelk pots) and unsuitable ground). The number of stations surveyed each year has been between 36 and 40 from 1976-1995 (mean 37.6). Since 1995 the survey coverage has been increased to a target of 45 stations (1996-2002 range 43-45, mean 44.5). The stations are located in the western Irish Sea along the Irish coast between Dundalk Bay and Carnsore Point.

The same gear has been used every year. The gear consists of a 3 m beam trawl with a 1 cm mesh reducing to a 1 cm cod end lined externally with a 10 cm mesh. The mouth of the beam trawl is fitted with a series of heavy tickler chains. Tows are of 15 minutes duration with a normal towing speed of 3 knots over the ground. The survey has normally been conducted between the second week of May and the end of the first week of June.

The ICES Working Group for the Assessment of Northern Shelf Demersal Stocks (WGNSSDS) has noted that recruitment of Irish Sea plaice over the past 13 years has been remarkably stable and there is very little contrast in year-class strengths for the period covered by available tuning data. The WGNSSDS 2002 found that the 1991 year-class was

clearly identified by the Juvenile Plaice Survey at several ages suggesting good internal consistency for the survey series. The WGNSDS therefore decided that the Juvenile Plaice Survey could be used as an appropriate index for the plaice population in the whole of the Irish Sea.

A budget for the Juvenile Plaice Survey is included as a Priority 2 (Extended Program) survey within Ireland's proposed 2005 National Program.

Nephrops Surveys (Nephrops Ecology in Divisions VIIa)

The Marine Laboratory in Aberdeen developed fishery independent tuning and biomass datasets using underwater television (UWTV) surveys to estimate stock size from burrow densities. These surveys provide important data on *Nephrops* ecology. The ICES Advisory Committee for Fisheries Management (ACFM) have recommended that UWTV surveys should be used to provide biomass estimates for non-assessed and poorly assessed stocks. Ireland (Marine Institute) and UK Northern Ireland (DARDNI) conducted a joint *Nephrops* ecology/UWTV survey in August-September 2003. Ireland and UK Northern Ireland intend to repeat this survey as part of the extended programme in 2004 and 2005. Funding is sought in the under the extended programme for the Irish leg of this joint survey. These combined trawl-UWTV surveys replace a previous Irish trawl only survey, which was not usable for stock assessment purposes.

H Biological sampling of the catches : Composition by age and by length

Irish sampling requirements, schemes and exemptions under Regulation (EC) No 1639/2001 minimum community programme for demersal, pelagic, Nephrops, deepwater and inshore stocks and discard species are presented in Tables 1-6. Where Ireland seeks an exemption from sampling the justifications for the exemption are also given.

The role of the Marine Institute's Fisheries Science Services is to assess, research and advise on marine fisheries resources. This is carried out to allow these resources to be rationally exploited and managed in a sustainable way. FSS conducts a comprehensive monitoring programme in the waters around the Irish Coast, part of which includes assessing discard rates at sea.

Sampling Protocols

Samples collected for length and age are stratified by ICES Area, Quarter, and Species. Fish are taken from either graded or un-graded samples. When fish are sampled for measured only purposes from graded categories, samples across all size categories are recorded, and measurements are taken proportionally across the number of grades present for the sampling event. Sampling will be carried out in all the main fishery harbour centres.

Nephrops sampling is also carried out according to standard operating procedures and is consistent with other countries sampling protocols that also exploit these stocks. The Irish protocols ensure that the samples are representative of fleet activity in a month, this is especially important if the fishery is affected by tides, weather or other factors.

For *Nephrops*, in FU 15, 17, 20-22 the following is collected during the normal course of sampling

- A random basket of "unsorted catch", from any haul which has not been a foul haul.
- A random basket full of "discards", from any haul which has not been a foul haul.
- The discard sample contains discarded small *Nephrops* and heads if tailing is occurring.

All *Nephrops* data is collected electronically using the NEMESYS system (i.e. electronic calipers) and up-loaded to the STOCKMAN database.

For each stock the intended sampling level can be found in Tables 1 – 6 of the Irish submission. For other EU member states landings in Ireland, the sampling levels are also outlined in Tables 1 – 6. The sampling levels are based on the average of landings for the years 1999 – 2001, and as outlined in the Data Collection Regulation.

All measured only data is sent to the MI laboratory where it is entered onto the relevant database.

Aged Only Samples

Samples are taken from either graded or un-graded samples. Wherever possible at least 10 otoliths/illicia per size class will be taken for each size class measured. The number of samples will also reflect the fishing activity and if there is a major shift in effort from one area to another this will be reflected in the numbers of otoliths/illicia taken. For each stock the intended sampling level is outlined in Tables 1 – 6.

Data will either be recorded manually or entered directly onto electronic data sheets. All aged data is sent to the MI laboratory where it is logged, then entered or uploaded onto the relevant database.

Age Reading Protocols

All age reading will be carried out according to Standard Operating Procedures, resulting from the various international otolith/illicia exchanges and workshops, and as outlined in their respective reports. All new or difficult species, such as hake, and anglerfish are read by two age readers, and random samples are exchanged with other European laboratories with existing expertise, in order to ensure the precision of the Irish age readings.

All age readings are entered onto the relevant database ready for reporting for the various working groups.

Discard Programme

In 1993 FSS developed an on-board observer programme for scientists to monitor the levels and practices of discarding in the Irish fleet. In the past, funding for this programme has been provided under several EC projects but in 2002 with the establishment of the data collection (Regulation EC No. 1639/2001) the monitoring of discards is now a mandatory part of a European fisheries sampling programme. Collection of the discard data is carried out by FATs (Fisheries Assessment Technicians). There are six Fats based in Rossaveal, Killybegs, Howth, Dunmore East and Castletownbere (two FATs). As well as covering the major fishing ports, the FATs are responsible for collecting data from other ports such as Union Hall, Kilmore Quay, Clogherhead Dingle and Greencastle.

Discard Sampling Targets

On the basis of the Data Collection Regulation sampling requirements each FAT is obliged to target specific fisheries i.e. a fleet operating in a particular area and targeting specific species. Discard Sampling targets for 2005 are based on the analysis of "Optimum sampling levels in the Irish discard program" using historical discard data collected by FSS. The targets are based on levels of precision needed for discard sampling, the importance of maintaining a time series of data and previous sampling effort.

Minimum Programme

Ireland currently undertakes biological sampling of the commercial catches (length and age), including discards, of the stocks from the north-east Atlantic listed in Appendix XV of the EU Commission Regulation 1639/2001.

Ireland intends to exceed the minimum program targets for all stocks given in Tables 1-6 in 2005. Further details of sampling methodology and exemptions in the Ireland programme are given below by stock grouping.

Precision Levels and Sampling Intensities

In accordance with Chapter 1 B of Regulation 1639/2001, quantitative targets for length, age and discard sampling are defined directly by sample sizes and sampling rates rather than by the definition of the levels of precision and confidence to be achieved.

The sampling proposed by Ireland in 2005 for length and age for certain species intentionally exceeds the levels required under the MP specification of the DCR. This is because Ireland is following STECF-SGRN recommendations in planning for sampling levels for these species, (i.e. based on levels achieved in the past for species where the DCR levels were believed to be too low). Specifically STECF-SGRN concluded “for the time being, it is prudent to maintain the present sampling levels until there is sufficient evidence that a reduction in sampling frequency or in sample size will not affect significantly the quality of the stock assessments” (STECF SGRN Report July 2003)

Ireland has tested the validity of this approach for a number of stocks (see Technical Report – Irish National Program, 2003). A comparison was made between the CV in numbers-at-age realised by actual levels of Irish sampling and the precision achievable by sampling at the intensities defined under the MP of the DCR. The analysis indicated that, when sampling to a level specified under the MP of the DCR:

- Sampling intensity can be grossly inadequate,
- Sampling levels are sometimes so low that the probability of sampling fish from the extremes of the length distribution is often zero.
- Highest CV’s in the catch numbers are sometimes coincident with the most abundant age in the catch.

The sampling strategy proposed by Ireland in its 2005 National Programme is consistent with that used in the 2004 National Programme:

The minimum quantitative sampling targets are calculated using the sampling intensities specified in Annex XV of Regulation 1639/2001. The Irish national program views these sampling targets as minimum thresholds. Sampling is stratified spatially and temporally by applying the distribution of landings by port and month over the last three years to the agreed sampling levels. Irish Department of Communications, Marine and Natural Resources (DCMNR) landings data were analysed by month and port to identify the important periods and places of landing for each stock. For some pelagic stocks and deepwater species the distribution of landings has changed markedly over the last few years. The most appropriate distribution of landings was therefore used.

It is expected that proposed revisions to the Data Collection Regulation will establish precision as the basis for calculation of sampling intensities. Ireland is currently analysing the precision achieved by historic sampling levels. Ireland will therefore be

in a position to apply the results of these analyses to any re-submission of the 2005 National Program drafted in accordance with a revised Data Collection Regulation.

Sampling of Foreign Landings

Landings into Ireland by foreign vessels have been included in Tables 1 and 2. Overall sampling intensities were calculated by adding the tonnage landed by Irish vessels to those from foreign or flag vessels and applying the sampling strata specified in Regulation 1639/2001 to the total landings. The latest data available from the Irish DCMNR on the amount of foreign landings into Ireland was used.

The sampling on foreign vessels will need to be increased to meet the requirements of the *minimum programme*. Unfortunately, there are major difficulties in gaining access to the fish landed by foreign vessels. In many cases, landings are made directly into waiting lorries for overland transport to another country. Sampling requires the goodwill of the vessel and it is very easy to raise objections from foreign vessels if their processing arrangements are interrupted.

For these reasons the Irish national programme will co-operate with the authorities of other countries in designing and carrying out this sampling. Through continuing participation in the ICES Planning Group on Commercial Catch, Discards and Biological Sampling (PGCCDBS) and other meetings Ireland will:

- Co-ordinate sampling protocols with foreign/flag countries, and,
- Co-ordinate the timing of sample processing and provision of data with foreign/flag countries.

A budget for continuing Irish participation in the PGCCDBS and other meetings is included in the section describing 'Other Co-ordination'.

Demersal Stocks

Table 1 gives the demersal stocks that require sampling of length and age under the *minimum programme*. Historical sampling levels for most of the demersal stocks meet (and often exceed) the requirements of the minimum programme. The sampling of foreign landings into Ireland (anglerfish, hake, megrim and saithe) will need to be increased to meet the criteria of the *minimum programme*.

In some stocks the levels of Irish landings and TAC do not exceed the thresholds above which sampling is required. Calculation of commercial CPUE tuning indices for these stocks requires that they continue to be sampled at the levels of previous sampling to maintain historical consistency in the CPUE tuning series. The Irish National Programme has therefore not sought an exemption from sampling such stocks under the minimum programme.

Pelagic Stocks

Table 2 shows the minimum sampling programme for the pelagic stocks. In the case of all herring stocks the numbers of samples, and fish aged and measured exceed the minimum requirements. It is not the intention to decrease the sampling levels on these species as the current sampling programmes can be maintained without requiring additional funding. In the case of Atlanto-Scandian herring, Ireland is not obliged to

carry out a sampling programme because of the level of catches in relation to the total EU catch of these species. Ireland intends to meet the minimum sampling requirements for blue whiting. The Irish programme for mackerel and horse mackerel will meet the minimum requirements. The programme for albacore tuna will need to be increased considerably in order to meet the minimum requirements. This may require considerable time at sea.

In order to ensure precision of age estimates, Ireland will participate in two age reading workshops in 2005. Both of these workshops are being organised, under recommendations from ICES. A herring ageing workshop will take place in Helsinki, Finland. Ireland will send two technicians to this meeting. Ireland proposes to host an ageing workshop on blue whiting. Such a workshop will involve EU MS, Norway, Russia and the Faroe Islands and will be the first such meeting since 1996. This blue whiting workshop is being organised as part of the EU contribution to the Coastal States Blue Whiting Group, that has identified age reading as an area in need of renewed attention, to achieve consistency in methodology.

***Nephrops* Stocks**

The sampling requirements, schemes and exemptions under Regulation (EC) No 1639/2001 minimum community programme *Nephrops* stocks around Ireland are presented in Table 3. Ireland intends to exceed the requirements of the minimum programme in 2005. The total target effort will be at least 148 samples (as defined below) of at least 200 individuals from the six FUs and two management areas outlined in Table 3.

Exemption Rules for *Nephrops*

In the Regulation there is mismatch between the geographical disaggregation levels for the collection of *Nephrops* data (viz. the Functional Units) and the geographical areas that are used in the exemption rules (viz. the TAC areas). EU Member States can now apply for a derogation and be exempt from the obligation to gather length composition data on their *Nephrops* catches, landings, etc., (a) when their share in an area TAC is less than 5 % or (b) when their landings from that area are less than 100 t on average during the past three years. Sampling these landings will be difficult given their insignificance compared to landings from other areas. Therefore, Ireland requests and exemption from the obligation to collect length composition data on catches and landings in Sub-area VI since Ireland's quota is 1.3% of the EU share of the TAC. Ireland is obliged to collect length composition data from all the FU in Sub-area VII and from landing taken outside current FUs.

Definition of a *Nephrops* sample in the Irish Programme

Nephrops sampling for many stocks around Ireland is complicated by the fact that *Nephrops* maybe landed either graded whole or as graded tails. Proportions of the catch landed as tails varies considerably by landings depending on several factors. Therefore in the case of the Irish Sea West stock (FU 15) the following 'two part sampling methodology' has been in place for many years: An unsorted 'catch sample' and an unsorted 'discard sample' (which includes heads from *Nephrops* which are landed as tails) is obtained either at sea or from vessels as they land.

The small *Nephrops* discards and the heads in the ‘discard sample’ are then used to calculate a discarding ogive on a quarterly basis. The unsorted ‘catch sample’ and unsorted ‘discard sample’ contain elements of landings and discards in varying proportions. In the Irish programme these are considered independent samples for the purposes of Appendix XV(a).

Sampling effort will determine cost of the Irish *Nephrops* sampling programme since the time and costs of measuring increased numbers of individual in a sample is negligible given the time and costs of obtaining and sorting ‘catch’ and ‘discards samples’. In accordance with Section H.1.b of the Regulation Ireland intends measure in excess of the sampling levels defined in Appendix XV(b).

Ireland intends to implement the above ‘two part sampling methodology’ for *Nephrops* stocks in FUs 14, 15, 17 and 20-22 in the 2005 programme. For other stocks such as FU 16 or FU 19, where *Nephrops* are mainly landed whole, unsorted catch samples and landings samples will be obtained according to the effort and sampling levels outlined in Appendix XV.

Deep-water Stocks

Table 4 gives the deep-water stocks that require sampling of length and age under the minimum programme.

Ireland implements a comprehensive observer programme, carried out by the Marine Institute. This work is carried out in fulfilment of Council Regulation 2347/2002. This regulation requires member states to deploy observers on deepwater fishing vessels. Ireland has harmonised the sampling of deepwater fish under this regulation, with the sampling that is required under the Data Collection Regulation. This was done to prevent unnecessary overlap between requirements under different regulations.

In 2005 the Marine Institute will deploy observers on four commercial deepwater fishing vessels. Discards and landings will be monitored for all deep water species. In addition, length and age samples of deepwater fish will be obtained from commercial landings in ports.

The deepwater species that are sampled by Ireland are ling, migratory sharks, orange roughy and ray and skate. Length and age samples of ling will be collected in Sub-areas VI and VII. For orange roughy, only length samples are required.

Sampling of elasmobranchs

The main elasmobranchs taken in Irish fisheries are rays and spurdog. At least six ray species are caught by Irish vessels, but at present landings data are not available at a species level because they are landed together. This presents difficulties for obtaining representative samples for length. Samples will be identified to species level and the proportions will be used as a key to disaggregate national landings data.

In sub-area VI Ireland takes 13% of international landings of rays and in sub-area VII 20% of international landings are Irish. In view of the difficulties in obtaining length samples of each of the species in the landings it is necessary to sample at a higher frequency than stipulated in the current regulation. Sampling for length of the ray species is the only way in which landings can be disaggregated to species level, as required in Annex XVI of the Commission Regulation. The sampling comprises 4 species in Division VIIa, 5 species in Division VIIg-h and Sub-area VI and 6 species in Division VIIb-k.

For spurdogs, length sampling will be carried out in Sub-area VII. Ireland takes only 3% of the catches in Sub-area VI but 17% in Sub-area VII. In order to obtain reasonable length frequencies for this species it is necessary to sample both sexes.

Other Stocks

Table 5 gives sampling requirements for other (mainly inshore) stocks for which Ireland has a small catch. Brown crab, Lobster, Razor Shells and Whelk need to be sampled to meet the requirements of the *minimum programme*.

Discard Sampling

Ireland has carried out a discard-monitoring programme for the main Irish fleets since 1994 under various EU Study Contracts. Discards are currently monitored for most of the stocks in Annex XII of Regulation 1639/2001. The discard-sampling programme detailed in Table 6 is designed to meet the criteria for the *minimum programme*. It includes increased sampling effort for species in deepwater, pelagic and *Nephrops* fisheries. For most demersal stocks estimates of discard rates by weight are available for the last three years. In these stocks an estimate of the discarded catch was calculated using the estimated discard rate. In other stocks an estimate of the discarding rate is used as the basis for estimates of the discarded catch. The discard sampling effort required under the minimum programme was calculated by applying the sampling intensities specified in Annex XV of Regulation 1639/2001 to the estimates of discarded catch.

Because of the fishery-specific nature of discarding practices the Irish discard sampling effort is not distributed evenly over the fishery as it is for length and age sampling of the landings. Instead the Irish discard sampling effort is concentrated into particular fisheries where discarding is considered a major problem. This sampling strategy is considered to be more efficient than simple random sampling as it yields more robust estimates of discarding rates in the high-discard fisheries.

Irish discard data have been collated with discard data from other nations at the ICES Study Group on Discards and Bycatch Information (SGDBI). SGDBI have then made these data available for their inclusion in international stock assessments. The SGDBI provided a forum for the planning and co-ordination of discard sampling effort, and the co-ordination of sampling protocols to ensure that important fisheries are all adequately sampled for their discards. A budget for continuing Irish participation in co-ordination meetings is included in the section describing 'Other Co-ordination'.

In 2005, Ireland will continue a self-sampling project in the Irish Sea *Nephrops* fishery. This project (ECONEPH – See Appendix V) will be conducted with co-operation of the Irish Industry (Irish Fish Producers Organisation) and will involve several vessels providing samples of discarded catch on a monthly basis. This pilot project will be modelled on the discard sampling programme carried out by Belgium under the Data Collection Regulation. Reported discarding levels will be validated by dedicated discard observer trips on vessels in this fleet.

Recreational fisheries

Ireland has a very small and developing recreational fishery for blue fin tuna (see Module E)

A pilot blue fin tuna fishery (rod and line – fish returned) has been established off the west coast in the late summer period. However, this fishery has only developed since 2001. A national programme is underway to record the distribution and abundance of blue fin tuna off the west coast during the summer months. A small scale, nationally funded blue fin tuna tagging project (data storage and satellite tracking) was undertaken in 2003 with MI, BIM and US scientists.

As these pilot studies have indicated that the Irish recreational fishery for blue fin tuna is still very small and developing, Ireland has not included a sampling programme for recreational fisheries in its 2005 National Programme.

SPECIAL COMMENT

Overall Projected Personnel Costs for this module in 2005 are 8% higher (€801,098 in 2005; €801,098 in 2004). The 8% increase is mainly due to salary increases associated with national pay agreements (see introduction).

Port Contract Samplers

These are locally, part time employed personnel who are based in the fishing ports. They sample fish landings (length only) under the DCR. Sampling is co-ordinated by the Senior Laboratory Technicians at the Marine Institute.

Remote Age Sampling

This relates to quarterly port visits by Marine Institute Staff to secure age samples of landings for age reading purposes.

I Other Biological Sampling

Minimum Programme

Sampling Requirements

The stocks that require sampling by Ireland are listed in Tables 1 and 2. Stocks are exempt from sampling requirements if the TAC in the last 3 years has been less than 200 tonnes or less than 10% of the community share (providing the sum of all TACs of members states whose allocation is less than 5% does not exceed 20% of the community share). This rule cannot be applied in all cases, e.g. a TAC might be granted for herring in ICES areas I and II while Appendix XVI lists a sampling requirement for areas IIa and V. In cases where the stock definitions do not match up, the mean landings figures for 2001-3 were used instead of TACs. The same was done for stocks that have no TACs. Landing figures for 2003 were provisional.

Sampling programme 2005

Cod, Haddock, Whiting, Hake, Saithe, Megrim, Plaice, Sole, Anglerfishes and Rays.

Sampling for biological parameters has proved difficult to carry out during observer trips, as this would interfere with the work of the fishermen. In the majority of cases, fish are gutted while they are being sorted and the Fisheries Assessment Technicians do not get an opportunity to sample the fish beforehand. In order to be able carry out biological sampling on board of commercial vessels, the skippers will have to be reimbursed for the inconvenience, time loss and reduction in value of the catch. The Marine Institute proposes to send two observers out on five five-day sampling trips on commercial vessels. Sampling will take place from late January to early March. The first surveys will concentrate on flatfish, which spawn around January and the later surveys will concentrate mainly on the other demersal species. Additional sampling will also be done in the ports for species that are landed 'round' or with the gonads intact. Also, all discards that are brought to the lab to be aged, will be sexed and maturity stages will be recorded.

Orange roughy

Landings of orange roughy have been in steep decline in the last years. If the landings are very low in 2004, Ireland might request a derogation to be exempt from requirements to sample orange roughy in 2005. Otherwise Ireland will continue to sample orange roughy during deepwater observer trips on board of commercial vessels.

Herring

Herring will be sampled as part of the North-West and Celtic Sea Herring Acoustic Surveys. Random samples will be taken from trawls for determination of length, weight, age, sex, and maturity stage.

Mackerel and Horse mackerel

Biological parameters of Mackerel and Horse mackerel are assessed on a tri-annual basis as part of the internationally coordinated Mackerel and Horse Mackerel Egg Survey Programme (listed in Module G). Random samples of both species are taken from trawls for determination of length, weight, age, sex and maturity stage and samples will be selected for fecundity determination. The surveys are taking place during 2004 and the next survey programme is planned for 2007.

Blue whiting

Biological sampling of blue whiting took place in 2004 during the internationally coordinated Blue Whiting Acoustic Survey Programme. Random samples were taken from trawls for determination of length, weight, age, sex and maturity stage. Ireland has submitted a proposal to carry out this survey again in 2005. The Blue Whiting Acoustic Survey is likely to be given priority 1 status and is listed in Module G.

Albacore tuna

Landings of albacore have been in decline for the last few years and the fishery might not develop during the summer of 2004. If this is the case Ireland will request to be exempt from sampling requirements of albacore in 2005. If the fishery does continue, Ireland will begin a biological programme to age albacore using fin clips. Sampling for other biological parameters might prove difficult as invasive sampling would reduce the value of the fish and individual fish are quite valuable. Ireland might seek to cooperate on biological sampling with Spain, whose TAC is over two-thirds of the community share

Edible crab

Sampling of edible crab will take place during the spawning season in August and September. Female crabs will be examined externally for presence of eggs and sperm plugs; cheliped width will be recorded for males. Both sexes will be examined for the development of the gonads.

Lobster

It is currently unclear whether the Irish landings contribute more than 10% of the total EU landings. This is being investigated currently. If there is a requirement to sample lobsters, this will be done in the ports and on observer trips. Lobsters will be examined externally for signs of maturity. For females these are the presence of spermatophores and the external appearance of the gonad, for males the length of the *appendix masculina* will be recorded.

Nephrops

A biological sampling programme for *Nephrops* has coordinated by members of the Working Group on Nephrops Stocks, WGNEPH. Ireland will conduct sampling for maturity in Functional Units 17 and possibly 18-19, depending on sample availability. The maturity stage of the ovaries will be examined and the presence of spermatophores will be recorded. For males the *appendix masculana* will be measured.

The feasibility of tagging programs to estimate growth parameters will be investigated.

Problems

Definition of stocks

The DCR requires biological sampling for stocks mentioned in Appendix XVI of the regulation. It is unclear, however if the appendix states that e.g. cod have to be sampled in areas VIa, VIb, VIIa, VIIb-k, VIII, XII, XIV, whether this is to be considered to be one stock or a number of stocks based on TAC areas, assessment

areas or biological definitions of stocks, all of which cover different geographical areas.

Precision

The required precision levels will be hard to achieve for a number of parameters, particularly those expressed as proportions. Sampling levels of 400 or more fish per age class would be required in a large number of cases. This sampling level is unachievable for fish with a wide age distribution. Details are given in the Module I of the Technical Report for 2003 (Ireland).

Table 1. Summary of sampling requirements of Ireland in 2005. To determine which stocks required sampling the average TAC over 2001-3 was evaluated. For stocks that did not have TACs, the average landings over 2001-3 were used. The two criteria are whether the TAC/landings are larger than 200 tonnes and whether they make up more than 10% of the total community share.

Species	Stock	Type	>200 Tonnes	>10% share?	sampling required?
ICES AREA I II					
Herring	Ila V	TAC	Yes	No	No
Cod	I II	TAC	Yes	No	No
Haddock	I II	Land	No	No	No
North Sea and Eastern Channel, ICES areas IV VIII					
Herring	IV VIII	Land	Yes	No	No
		Part of North-East Atl.			
Mackerel	IV VIII		TAC		No
Horse Mackerel	IV VIII	Land	Yes	No	No
NE Atlantic and W Channel, ICES areas II V VI VII (excl d) VIII IX XII XIV					
Scabbardfish	IXa X	TAC	No	No	No
Alfonsinos	X	TAC	No	No	No
Edible crab	All areas	Land	Yes	Yes	Yes
Herring	VIaS VIIbc	TAC	Yes	Yes	Yes
Conger	X	TAC	No	No	No
Roundnose grenadier	All areas	TAC	Yes	No	No
Sea bass	All areas excl IX	Land	No	No	No
Anchovy	IXa only Cadiz	TAC	No	No	No
Anchovy	VIII	TAC	No	No	No
Cod	Vb VI XII XIV	TAC	Yes	Yes	Yes
Cod	VIIa	TAC	Yes	Yes	Yes
Cod	VIIb-k VIII IX X	TAC	Yes	Yes	Yes
Lobster	All areas	Land	Yes	?	Yes
Orange roughy	All areas	TAC	Yes	Yes	Yes
Four-spot megrim	Vb VI XII XIV VII VIIIa-e IX X	TAC	No	No	No
Megrim	Vb VI XII XIV	Land	Yes	Yes	Yes
Megrim	VII	Land	Yes	Yes	Yes
Megrim	VIIIa-e IX X	TAC	No	No	No
Common squid	VIIIc IXa	TAC	No	No	No
Anglerfish ^a	Vb VI XII XIV	TAC	Yes	Yes	Yes
Anglerfish	VII	TAC	Yes	No	No
Anglerfish	VIIIabde	TAC	No	No	No
Black-bellied angler	VIIIc IX	TAC	No	No	No
Black-bellied angler ^a	Vb VI XII XIV	TAC	Yes	Yes	Yes
Black-bellied angler	VII	TAC	Yes	No	No
Black-bellied angler	VIIIabde	TAC	No	No	No
Anglerfish	VIIIc IX	TAC	No	No	No
Haddock	Vb VI XII XIV	TAC	Yes	Yes	Yes
Haddock	VII VIII IX X	TAC	Yes	Yes	Yes
Haddock	VIIa	TAC	Yes	Yes	Yes
Whiting	IX	TAC	No	No	No
Whiting	Vb VI XII XIV	TAC	Yes	Yes	Yes
Whiting	VIIa	TAC	Yes	Yes	Yes
Whiting	VIIb-k	TAC	Yes	Yes	Yes

Species	Stock	Type	>200 Tonnes	>10% share?	sampling required?
Hake	Vb VI VII XII XIV	TAC	Yes	No	No
Blue whiting	V VI VII XII XIV	TAC	Yes	Yes	Yes
Blue whiting	I-IV	TAC	No	No	No
Blue ling	X	TAC	No	No	No
Ling	All areas	TAC	Yes	No	No
Red Mullet	All areas	Land	No	No	No
Norway lobster	Functional unit	TAC	No	No	No
Common octopus	VIIIc IXa	TAC	No	No	No
Shrimps	VIIIc IXa	TAC	No	No	No
Common scallop	VIII d	Land	No	No	No
Forkbeard	X	TAC	No	No	No
Plaice	VIIa	TAC	Yes	Yes	Yes
Plaice	VII fg	TAC	No	Yes	No
Saithe	Vb VI XII XIV	TAC	Yes	No	No
Saithe	VII VIII IX X	TAC	Yes	Yes	Yes
Wreckfish	X	TAC	No	No	No
Blonde ray ^b	All areas	Land	Yes	Yes	Yes
Thornback ray ^b	All areas	Land	Yes	Yes	Yes
Spotted ray ^b	All areas	Land	Yes	Yes	Yes
Cuckoo ray ^b	All areas	Land	Yes	Yes	Yes
Other rays & skates ^b	All areas	Land	No	No	Yes
Greenland halibut	Va XII XIV	Land	No	No	No
Sardine	VIII IX	TAC	No	No	No
Spanish mackerel	VIII IX	TAC	No	No	No
Mackerel	Vb VI VII VIII abde XII XIV	TAC	Yes	Yes	Yes
Redfishes	Va XII XIV	TAC	No	No	No
Cuttlefish	VIIIc IXa	TAC	No	No	No
Sole	VIIa	TAC	No	Yes	No
Sole	VII fg	TAC	No	No	No
Sole	VII bc	TAC	No	Yes	No
Sole	VII hjk	TAC	Yes	Yes	Yes
Seabreams	VIIIc IXa X	TAC	No	No	No
Blue jack mackerel	X	TAC	No	No	No
Horse mackerel	IIa IV	TAC	Yes	No	No
Horse mackerel	Vb VI VII VIII abde XII XIV	TAC	Yes	Yes	Yes
Pouting	IXa VIIIc	TAC	No	No	No
Highly migratory species Atlantic Indian Pacific Ocean					
Albacore	Atlantic north of 5°N	TAC	Yes	Yes	Yes
Bluefin tuna ^c	NEA	Land	No	No	No

^a The TAC includes both anglerfish and black-bellied anglerfish and is exactly 10% of the community share. ^b Rays and skates are not speciated in the landings. The four species mentioned above make up 97% of the ray species caught during surveys. ^c The TAC for albacore tuna is exactly 10%, actual landings are less.

Table 2. Biological parameters for the stocks that require sampling by Ireland. T = sampling every three years, S = ever six years

species	Area	growth data		maturity		fecundity		sex ratio	
		length	weight	length	age	length	age	length	age
NE Atlantic and W Channel, ICES areas II V VI VII (excl d) VIII IX XII XIV									
Edible crab	All areas	T	T	T				T	
Herring	VIaS VIIbc	T	T	T	T			T	T
Cod	Vb VI XII XIV	T	T	T	T			T	T
Cod	VIIa	T	T	T	T			T	T
Cod	VIIb-k VIII XX	T	T	T	T			T	T
Lobster	All areas	T	T	T				T	
Orange roughy	All areas	T	T	T	T			T	T
Megrims	Vb VI XII XIV	T	T	T	T			T	T
Megrims	VII	T	T	T	T			T	T
Anglerfish	Vb VI XII XIV	T	T	T	T			T	T
Anglerfish ^a	VII	T	T	T	T			T	T
Black-bellied angler	Vb VI XII XIV	T	T	T	T			T	T
Black-bellied angler ^a	VII	T	T	T	T			T	T
Haddock	Vb VI XII XIV	T	T	T	T			T	T
Haddock	VII VIII IX X	T	T	T	T			T	T
Haddock	VIIa	T	T	T	T			T	T
Whiting	Vb VI V XII XIV	T	T	T	T			T	T
Whiting	VIIa	T	T	T	T			T	T
Whiting	VIIb-k	T	T	T	T			T	T
Hake ^a	Vb VI VII XII XIV	T	T	T	T			T	T
Blue whiting	V VI VII XII X IV	T	T	T	T			T	T
Norway lobster	Functional unit	S	S	S				T	
Plaice	VIIa	T	T	T	T			T	T
Plaice ^a	VIIIfg	T	T	T	T			T	T
Saithe	VII VIII IX X	T	T	T	T			T	T
Blonde ray	All areas	T	T	T				T	
Thornback ray	All areas	T	T	T				T	
Spotted ray	All areas	T	T	T				T	
Cuckoo ray	All areas	T	T	T				T	
Mackerel	Vb VI VII VIIIabde XII XIV	T	T	T	T	T	T	T	T
Sole ^a	VIIa	T	T	T	T			T	T
Sole ^a	VIIIfg	T	T	T	T			T	T
Sole ^a	VIIbc	T	T	T	T			T	T
Sole	VIIIhjk	T	T	T	T			T	T
Horse mackerel	Vb VI VII VIIIabde XII XIV	T	T	T	T	T	T	T	T
Highly migratory species Atlantic Indian Pacific Ocean									
Albacore	Atlantic north of 5°N	T	T	T	T			T	T

^a These stocks will be sampled although there is no strict requirement.

Adding Value to the 2004 mackerel/horse mackerel egg surveys

The National Program for 2004 included surveys on the triennial mackerel/horse mackerel egg surveys (MHMES). The samples collected in these series of survey are primarily processed for mackerel and horse mackerel eggs. However, there is a considerable amount of 'extra information' in these samples.

During 2005 further work on the 2004 triennial samples are included in the National Programmes of Ireland, UK and Spain (there may be other potential partners) in order to extract further information from them. The target species will be hake, megrim and blue whiting eggs and larvae. These can provide biomass abundance indices for these important commercial populations, together with ancillary information on spawning areas and seasons and area of distribution. This will clearly add extra value to the costly MHMES.

A pre-agreement among the scientists involved in these surveys was reached during the Working Group on Mackerel and Horse Mackerel Egg Survey held in Lisbon, Portugal, from 1–4 April 2003. A recommendation was set up in the report. The WG recommends that “ all participants consider including the work carried out to date under the INDICES project as part of their National programmes under the EU Data Directive.” It was also agreed that the share of work between Institutes will be agreed during the WGMEGS to be held on autumn 2004. The Institutes seeking to support this work will share the workload."

The logistics of the scientific programme to be undertaken in 2005 will be discussed and agreed at a special meeting in the margins of the ICES Mackerel Working Group in September 2004.

Special Note

It should be emphasized here that this project under the DCR is seen as a small scale project that adds value to MHMES. It is not seen as a large scale plankton project that requires an in depth scientific analyses of all the biota of the samples. This is more suited to a large scale multidisciplinary FP6 or FP7 type project.

Extended Programme

When Ireland meets all the requirements of the Minimum Programme for biological sampling, further biological sampling will be carried out within the framework of the Extended Programme.

Module of evaluation of the economic situation of the sector

The collection of economic data in relation to EU Commission Regulation 1639/2001 was postponed until 2004. Irelands did not seek funding for 2002 and 2003 under EU Commission Regulation 1639/2001 to collect data for basic economic evaluation.

Ireland has been collecting some economic data during 2002 and 2003 under various pilot projects (nationally funded). A full programme commenced in 2004 and will continue in 2005.

J Collection of economic data by groups of vessels

Bord Iascaigh Mhara (BIM) – the Irish Sea Fisheries Board – is responsible for the collection of economic data from the Irish fishing fleet as defined in article 6 and appendices XVII and XVIII of Commission Regulation 1543/2000.

To comply with the regulation pilot surveys (Nationally Funded) were conducted in 2003 and 2004. The results of the 2003 survey are presented in the Ireland Technical Report for 2003.

These pilot surveys contains all the required data outlined in the minimum and extended programme and has been circulated to a randomly selected sample of the fleet (see tables 1 & 2 below). This pilot project will enable the most efficient method of collection and collation of economic data on the Irish Fleet to be established.

With reference to this pilot project and EC Regulation 1543/2000 the programme for the collection of economic data proposed for 2005 is similar to 2004 and is set out below.

2005 Sampling strategy

Building on the experience gained in 2003 and 2004, in particular the shortcomings that arose when the provision of data is voluntary, participation in the 2005 programme will be ‘ obligatory ‘. That is, each vessel identified for the survey will be required to make a return under the terms of the Data Collection Regulation, by a pre-assigned date. In addition, the details of each return are to be verified by a competent professional, i.e. the individual owner’s or company accountant. Details of the proposed 2005 survey form are shown in Appendix III.

General Sampling strategy

The national programme for collection of economic data will be based on the following data sources:

- Fleet register information from the Department of Communications, Marine and Natural Resources (DCMNR)
- Log sheet information from the DCMNR.
- Questionnaire information returned from vessel owners on a voluntary basis.

To ensure the highest possible standard of survey results whilst recognising the time & cost associated with a complete census of all vessels, the fleet will be divided into two distinct populations; the offshore fleet (vessels with an overall length of 12 metres or greater), and the inshore fleet (less than 12 metres). A different sampling strategy will be employed for each. The offshore fleet will be divided into subpopulations based on overall length and former MAGP sector as shown in Table 1.

Table 1: stratified sample by vessel group according to vessel overall length and MAGP segment (vessels over 12m).

Size	Sample Frame	Sample size	Percentage
Polyvalent	380	380	100%
Beamers	6	6	100%
Pelagic	22	22	100%

Total	408	408	100%

The inshore fleet sample selection will be based on data collected from the pilot project 2003 and an earlier survey carried out by Bord Iascaigh Mhara in 2001, where the fleet was sampled on the basis of fishing techniques. The main fishing technique of the vast majority of these inshore vessels is potting. Rather than subdivide this group on vessel length - which is a poor economic indicator for inshore potters - this section will be stratified based on the number of pots fished. The sample will also be stratified regionally, based on the 2001 Bord Iascaigh Mhara inshore survey (see Table 2).

Table 2: Stratified sampling of inshore fishing vessels based on region and number of pots fished.

Region	Pots fished	Sample Frame	Sample size	Percentage
<i>North / Northeast</i>	<30	101	20	20%
	30 – 299	244	37	15%
	300 – 599	109	22	20%
	> 600	39	16	40%
<i>West</i>	<30	11	6	50%
	30 – 299	217	33	15%
	300 – 599	84	25	30%
	> 600	37	11	30%
<i>South / Southwest</i>	<30	18	13	70%
	30 – 299	48	20	42%
	300 – 599	93	20	22%
	> 600	70	21	30%
<i>Southeast</i>	<30	136	20	15%
	30 – 299	67	20	30%
	300 – 599	32	19	60%
	> 600	9	5	50%
<i>East</i>	<30	13	7	50%
	30 – 299	70	21	30%
	300 – 599	39	20	50%
	> 600	10	5	50%

Total		1558	414	27%

Data collection practice

While the survey questionnaire has been developed during the pilot project to comply fully with the extended programme of data collection as defined in Appendix XVIII, the success of the survey depends ultimately on the cooperation of the fishermen. Bord Iascaigh Mhara will ensure the best possible outcome by consulting the relevant fisheries organisations and by advertising the survey in the national fisheries trade press.

The majority of the survey information will be collected by face-to-face interviews with vessel owners. All offshore survey interviews will be complete by the end of July, with the inshore survey being completed by end of September.

Database Development

- *System Overview*

The National Database for Economic Data will be designed to permit users to store and analyse all relevant data currently available (ie fleet register, logbook data etc) along with the data to be collected in the survey. The system will be designed to ensure that that when accessing information or exporting information to outside parties all data imported/exported will comply with current data regulations.

To comply with Articles 9 to 11 of the regulation, a stand-alone application will be developed that allows staff conducting the interviews on the coast to submit all data via a Visual Basic front end to a temporary Microsoft Access database residing on their local computer. This information can subsequently be uploaded to a centrally located MS SQL Server database that mirrors the temporary Access databases. All error checking and data validation is done via the application front end.

In addition work will be conducted over the course of 2005 to enable efficient data exchange between the databases developed by BIM and the Marine Institute to move towards an integrated bio-economic database.

Summary of functions of the Database

- Maintain details of all the vessels in the system
Details such as Vessel Code, Length, Depth, Tonnage etc
- Import records from other data sources
Ensure that the system is developed in such a way that it can import information provided by other data sources, Fleet register, log-book
- Export information
The functionality to provide information that is correct and compliant with data collection regulations
- Functionality to produce relevant reports for analysing data
A list of reports will be designed that may be automatically generated after data collection in any given year is complete
- Record details of vessel crews
Add details of crew's status (e.g. Skipper, Deckhand etc), age, nationality etc.
- Record Vessel Expense details
Food, Boxes, Ice, etc.

- Record Revenue details (Gross Earnings)
Gross earnings for the year, both from fishing and other non-fishing revenue
- Record Dues and Levies Information
Landing dues, Auctioneer's commission, PO levy etc
- User friendly system
Provide an uncomplicated user friendly front end for the system to allow the users to easily perform the required tasks. The front end of the system should be as straight forward as possible ensuring that the user doesn't get confused.
- Flexibility
Ensure that the system can accept several datasets from the regional databases. The system should be easily modified to allow other information to be easily added to the system e.g. Logbook Information, various surveys carried out by the vessels

Data Storage and Reporting

When the survey is complete and all information has been entered to the central database, it will be possible to extract any data requested by the commission within 20 working days as stipulated in Article 10(2) of the regulation. The data will be stored in aggregate format only and it will not be possible to identify individual vessels. At present there is no proposed plan to make this information available remotely via the internet or any other medium but the feasibility of this will be assessed over 2005.

Data output from the database will be used to formulate the following reports:

- An economic assessment of each individual fishing boat
- A fishermen's handbook, which will summarise all the information collected on all sectors of the fleet
- A report for the Commission.

As statistical and economic analyses are essential for the preparation of these reports, the Economic Social and Research Institute will provide the vital expertise to ensure that this process is conducted to the highest standards.

Database development

In 2004 a database was developed to store the economic data collected from the pilot survey. The data was entered via a Visual Basic front-end developed to mirror the survey questionnaire. The database is in MS Access format, but the data capture front end has been coded to facilitate the easy transfer of the database to a MS SQL Server database format.

For the 2005 data collection process functionality will be added to allow the uploading of additional complimentary data help by the Department of Communications, Marine and Natural Resources. Additionally, the reporting functionality will be increased to ensure the rapid and reliable production of reports to the Commission and other interested parties.

K Collection of data concerning the processing industry

Pilot programmes (Nationally Funded) are in place to collect data in line with information set out in Appendix III and XVII of EU Commission Regulation 1639/2001.

Minimum Programme

Ireland will continue to conduct pilot surveys (Nationally Funded) in 2005, to assess the annual value per sector of the parameters listed in Annex XIX of EU Commission Regulation 1639/2000.

Ireland notes that the obligation to meet fully the provisions of the Minimum Programme for the annual data by type of processing industry as specified in Annex IV on 1543/2000) shall not apply until 1st January 2006.

Extended Programme

No further economic data collection programmes will be started until the criteria for the Minimum Programme can be met.

Co-ordination – Meetings and Workshops

Scientific Planning and Co-ordination meetings

During 2005, Ireland will participate fully in the following ICES planning and co-ordination meetings and ageing exchanges which are directly related to data collection requirements under Commission Regulation (EC) 1639/2001.

Table 7 lists the meetings which are eligible for funding under the DCR. (It should be noted that this Table will change as the meetings for 2005 are finalised later in 2004).

IBTS

Ireland has been actively involved in the IBTS quarter four groundfish survey and are co-ordinating surveys between UK, Ireland, Spain and France within the ICES International Bottom Trawl Survey Working Group IBTS (see Module G). In 2005 Ireland will send one participant to the IBTS meeting.

In 2005, Ireland may also be asked by IBTS to participate in a workshop to develop guidelines, sampling protocols and sampling schemes for biological sampling aboard IBTS surveys (particularly a workshop to develop an international collection of species ID and maturity staging reference tools).

Study Group on Survey Trawl Standardisation

This Study Group is focused on minimizing survey variability in order to develop accurate and reliable time series of survey abundance indices. It follows the ICES mandate that all users of survey gears within ICES should develop a programme of standardization. Ireland will send one participant to this Study Group which is proposed to meet in Rome in April 2005.

PGHERS

Ireland will send one participant (STO) to the planning group on herring surveys (PGHERS) at a venue not yet decided. This working group will take 6 days between participation and travelling.

PGCCDBS

Ireland will send two participant the ICES Planning Group on Commercial Catch, Discards and Biological Sampling which will take place in 2005.

EU Member States were requested by PGCCDBS to include in their 2005 National Program Submissions (under International Co-ordination) attendance at the following workshops:

WGMEGS

In 2005 there will be a WGMEGS meeting in Bergen to collate the results for the 2004 mackerel and horse mackerel egg surveys. Two scientists from Ireland will participate in order to evaluate egg production and fecundity estimates.

Ageing exchanges

Ireland supports the recommendation of the STECF Subgroup on Research Needs, in its evaluation of the all national programs for age reading, “strongly recommends that work related to the age reading quality, such as the estimation of precision and accuracy of the age readings from age structure exchanges and reading workshops be encouraged in future NP submissions”.

Ireland will participate in the following ageing exchanges and workshops in 2005:

Herring

Ireland will send two herring age readers to the proposed age reading workshop to be held in Finland in 2005.

Whiting

Ireland will send two whiting age readers to the proposed workshop to be held in England in 2005.

Blue Whiting

Ireland will send two age readers to the blue whiting age reading workshop in Denmark in 2005.

Ireland will also participate in otolith exchanges of saithe, horse mackerel and sole in 2005, with a view to standardising age reading criteria of these species, amongst all European age reading laboratories.

International Co-ordination of DCR

Ireland will also host an international DCR co-ordination meeting for the Western Shelf Area. The details are currently being finalised with the Commission and Member States.

Regional Co-ordination Meeting

Ireland will host the first Regional Meeting for the Atlantic waters to start the process on co-ordination of the DCR between the main Member States who sample in this area. (Ireland UK, France, Spain and Portugal). The meeting is schedule to take place in Galway, Ireland in September 2004. Discussion will take place with the Commission during 2004 to finalise the meeting arrangements.

Co-ordination of Databases

Under the Data Collection Regulation, Ireland will establish multi-annual aggregated and science based datasets which incorporate biological and economic information.

Ireland will provide data to the relevant international organisations engaged in stock assessment, namely, ICES, ICCAT, STECF and the EU in accordance with the specific rules and regulatory provisions of these organisations. The EU will be informed by Ireland on the transmission of any data and will be provided with a digital copy upon request.

In accordance with articles 9, Ireland shall ensure that all data collected under the Data Collection Regulation are dealt with in a confidential way and that all primary and aggregated data are housed and managed on computerised databases accessible by electronic means to the Commission and National Correspondents. .

Data Base Development for 2005

Data from FSS port sampling is currently warehoused in STOCKMAN, which is a client-server relational database designed in SQL2000 with a VB6 graphical user interface (GUI). Other data, such as survey, discard and so on is presently housed in a number of Access 97 database on the Marine Institute's network.

Development of STOCKMAN has been ongoing since 2002 and several areas of development are scheduled for 2005, and are outlined below:

- Incorporate Nephrops data extraction module into STOCKMAN.
- Incorporate the new relational model to hold research survey data and associated queries. Modify the current Access97 and translate to SQL2000.
- Incorporate the new relational model to hold deep water survey data and associated queries. Modify the current Access97 and translate to SQL2000.
- Convert VB6 GUI to dot.net to overcome the limitations and minor bugs encountered with the current GUI
- Incorporate and develop the current morphology module for entry of biological data to facilitate the extra requirements of the Data Collection Regulation. (fecundity is not currently included as an entry field. There is also a requirement for queries that will extract sampling precision, growth rate, maturity ogives and so forth).
- Migration of the FSS historical data archives from an old DOS based database to STOCKMAN.
- Facilitate remote/dial-up access to STOCKMAN, either for data entry from the regional or port based staff, or for interrogation of the data for scientists working remotely at working groups or meetings.

Ireland will also continue work on an integrated bio-economic database. In light of work conducted by the Marine Institute on collection of biological data and by BIM on the collection of economic data, work will be carried out over the course of 2005 to enable efficient data exchange between the databases developed by BIM and the Marine Institute to move towards an integrated bio-economic database.

General Comments on the Data Collection Regulation

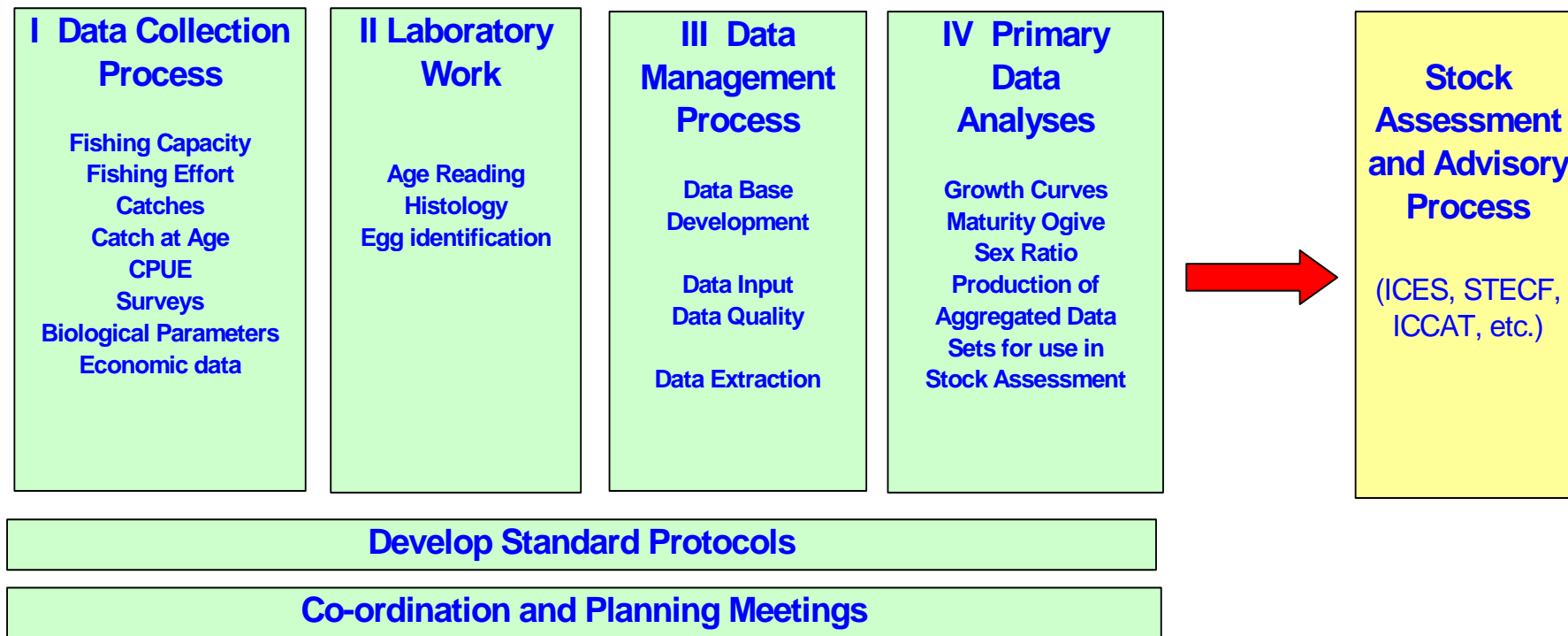
Council Regulation 1543/2000 established a community framework for the **collection and management of the data** needed to conduct the common fisheries policy. These comments are made with a view to stimulating debate on various aspects of the Data Collection Regulation.

- (1) In May each year MS must submit a Technical Reports for the previous year, a cost statement of the previous year and their National Programme for the following year. This creates great pressure on MS at this time as the same people are generally involved in producing the three reports. Technical Reports and Cost Statements should be submitted by 31st April and National Programmes by 31st May.
- (2) There is a clear need for further work and guidelines on precision methodology.
- (3) There needs to be a review of Priority 1 Surveys. There needs to be better co-ordination of surveys. As this is the largest cost to the Data Collection Regulation, perhaps MS should be given responsibility for surveys in specific areas and should take responsibility for co-ordination of the surveys within this area.
- (4) There is a need for much more co-ordination among National Correspondents. There should be an annual meeting of National Correspondents to discuss issues aimed at improving co-ordination of National Programmes. Presently the meetings are ad hoc, unstructured and limited time notice is given. The proposals for regional co-ordination meetings in 2004 may address this issue.
- (5) The area of the 'Atlantic Shelf' has been suggested as a possible co-ordination region. This would fit in with the proposed area for one of the Regional Advisory Councils. The meeting could become annual and rotate around the Atlantic Shelf countries. The countries involved are UK, Ireland, France, Spain and Portugal. The objective of the meeting would be to look at the way each country is conducting their respective national programmes and to identify areas for greater standardisation, collaboration and co-operation. **The meeting should not get too technical or too detailed.** It should agree on an approach or set of principles that would be followed up in the implementation of National Programmes.
- (6) There is also an issue with the relationship between a regional co-ordination group and ICES Planning Group on Commercial Catch, Discards and Biological Sampling (PGCCDBS). Perhaps PGCCDBS could be the Technical/Scientific forum where issues identified by the regional co-ordination meetings are addressed.

- (7) Age reading exchange schemes need to be co-ordinated and standard methods need to be established and accepted. The present system is too *ad hoc*.
- (8) Sampling level targets need to be revisited. Specifically stocks which are subject to recovery plan have had very much reduced landings in recent years. The level of sampling required has therefore fallen and the data for stock assessment data is lacking. A special annex for the sampling of recovery plan stocks needs to be established.
- (9) Port sampling should be conducted by fleet and not by stock.
- (10) Effort should be considered by metier as well as gear type.
- (11) Discard sampling should be conducted by fleet and not by stock.
- (12) Biological sampling needs to be co-ordinated. The present situation where MS are doing their own sampling is not an efficient use of resources. MS need to be given specific responsibility for stocks/species to avoid duplication and resource wastage. There could be up to 3 MS providing cod maturity data for the Celtic Sea area.
- (13) The species/stocks list for sampling is exhaustive and needs to be revised. Why are we collecting large data sets for species that are not currently assessed? The data collected for such species should be evaluated for use in 'quick and dirty' assessment methods before more data is collected.
- (14) When reports (e.g. pilot studies) are to be compiled by MS, clear guidelines should be given to National Correspondents by the Commission well in advance of the submission dates. This will avoid confusion and ensure that the Commission received the desired type of report on time and in a standard format.
- (15) There is an inconsistency in Article 10 of 1639/2001 with the 20 days provided for request/submission of data. Interpreted and implemented literally by a Member State the Article would currently allow Member States to delay the provision of data until such a time that the Commission is required to delete the data immediately upon receiving it.
- (16) The question of who are the 'custodians' of aggregated biological and economic data needs to be clarified. Disaggregated data is currently housed in National Institutes.
- (17) The sampling of foreign landings needs improved co-ordination

The Data Collection Regulation
EU Council Regulation 1543/2000
Establishing a Community Framework for the collection and Management of the Data Needed to conduct the CFP

Qualifying Funding Under DCR in Green



Comments on the budget for 2005

The total budget for the Ireland National Programme for 2005 relating to the Minimum Programme amounts to €4,086,315 Ireland is seeking 50% finding from the Commission which amounts to €2,043,157 (Table 8).

The detailed budget breakdown for the Minimum programme is given in Appendix I.

The total budget for the Ireland National Programme for 2005 relating to the Extended Programme amounts to €124,829 (Table 9). Ireland is seeking 30% funding for the extended programme in 2005 (€37,448) for two surveys. The detailed budget breakdown for the Extended Programme is given in Appendix II.

The equivalent total budget for the Ireland National Programme for 2004 relating to the Minimum Programme amounted to €3,882,254 with 50% finding from the Commission of €37,448.

The 2005 costs are higher (+€204,061 – 5.3% increase) than the 2004 costs as a result of;

- The work programme associated with the international blue whiting acoustic survey commences in 2005
- No mackerel egg survey will be carried out in 2005
- The inclusion of a deep water trawl survey as priority 1
- The transfer of two acoustic surveys from commercial vessels to the RV Celtic Explorer in 2005. This will greatly improve the quality of the surveys.
- Participation by Ireland in the International Norwegian Herring acoustic surveys.
- Development of acoustic expertise in-house.
- The inclusion of the Economic data collection in the Ireland National Programme for 2005.
- Increased number of planning groups and age exchange programmes
- Increased Salary Costs due to National Wage Agreements in 2004

In terms of the Ireland National Programme for 2005. the budget for surveys (G) account for 57% of the budget total with biological sampling of landings (H) accounting for 18%.

Figure 1 Proposed Station Positions for Western IBTS Q4 Groundfish Survey.

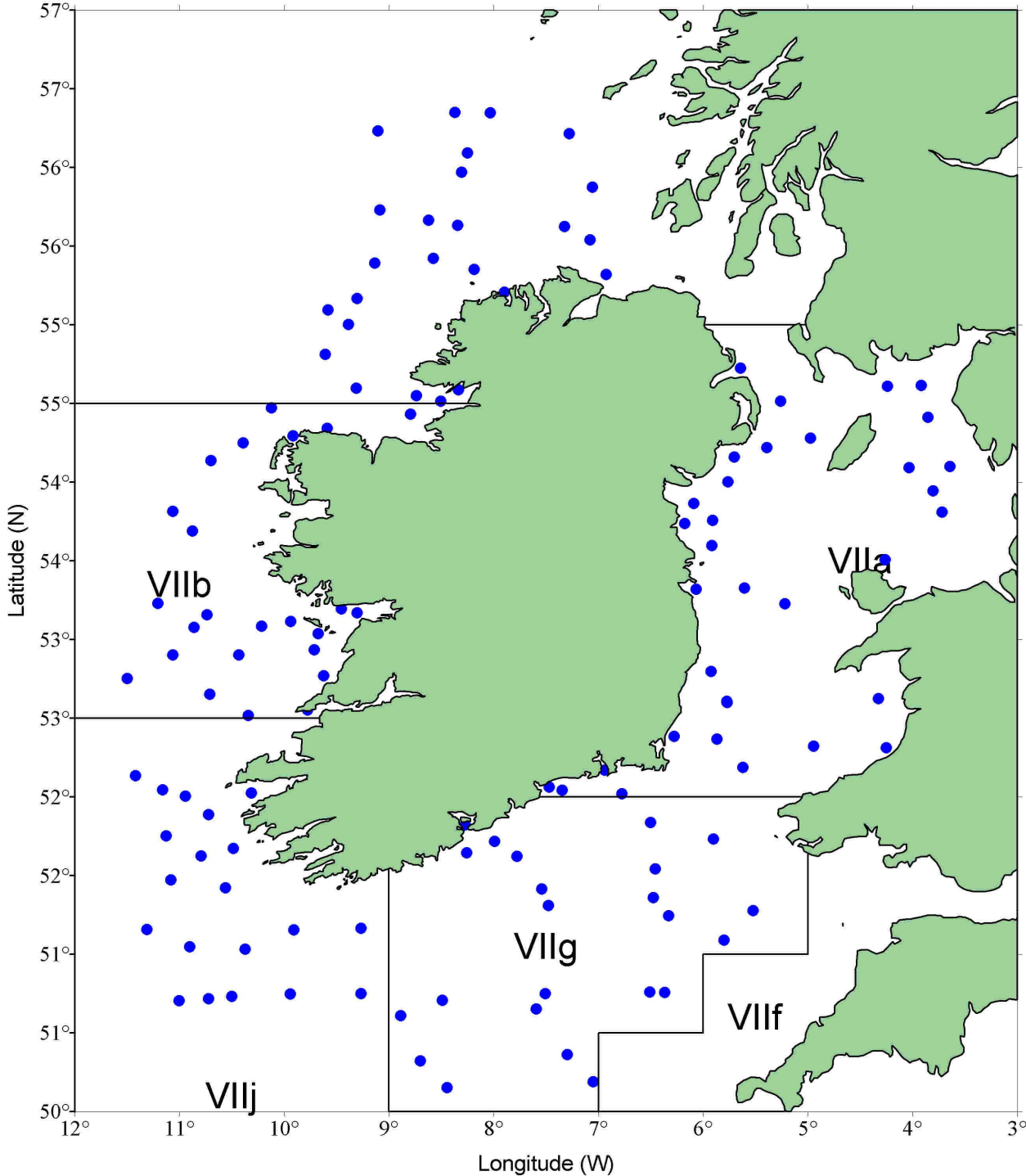
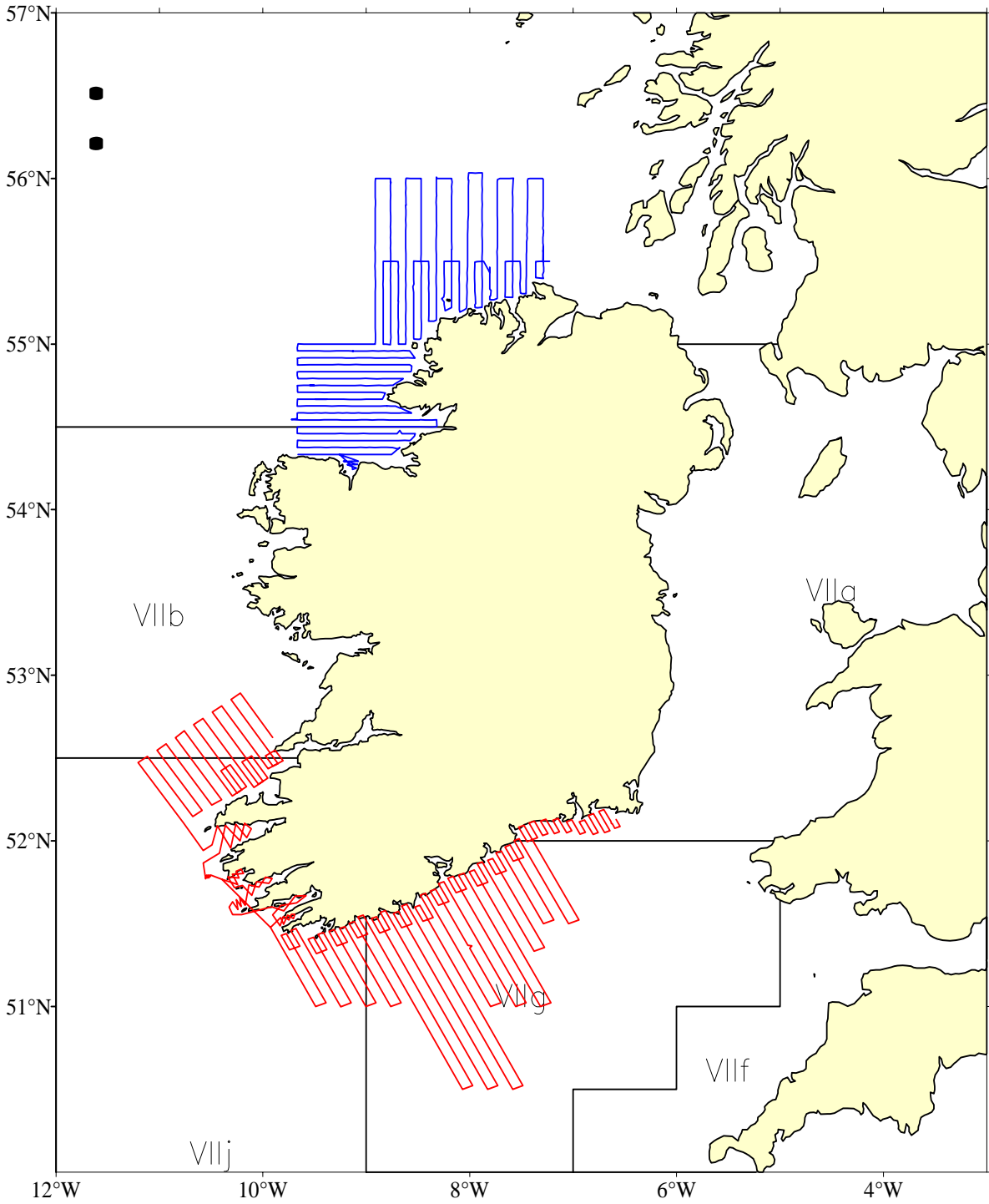


Figure 2 Proposed Survey Tracks for Spawning/Pre-Spawning Herring Acoustic Surveys



- North West Herring Acoustic Survey
- Celtic Sea Herring Acoustic Survey

Figure 3 Irish component of International Blue Whiting Acoustic Survey (march/April 2004) and proposed cruise track for 2005.

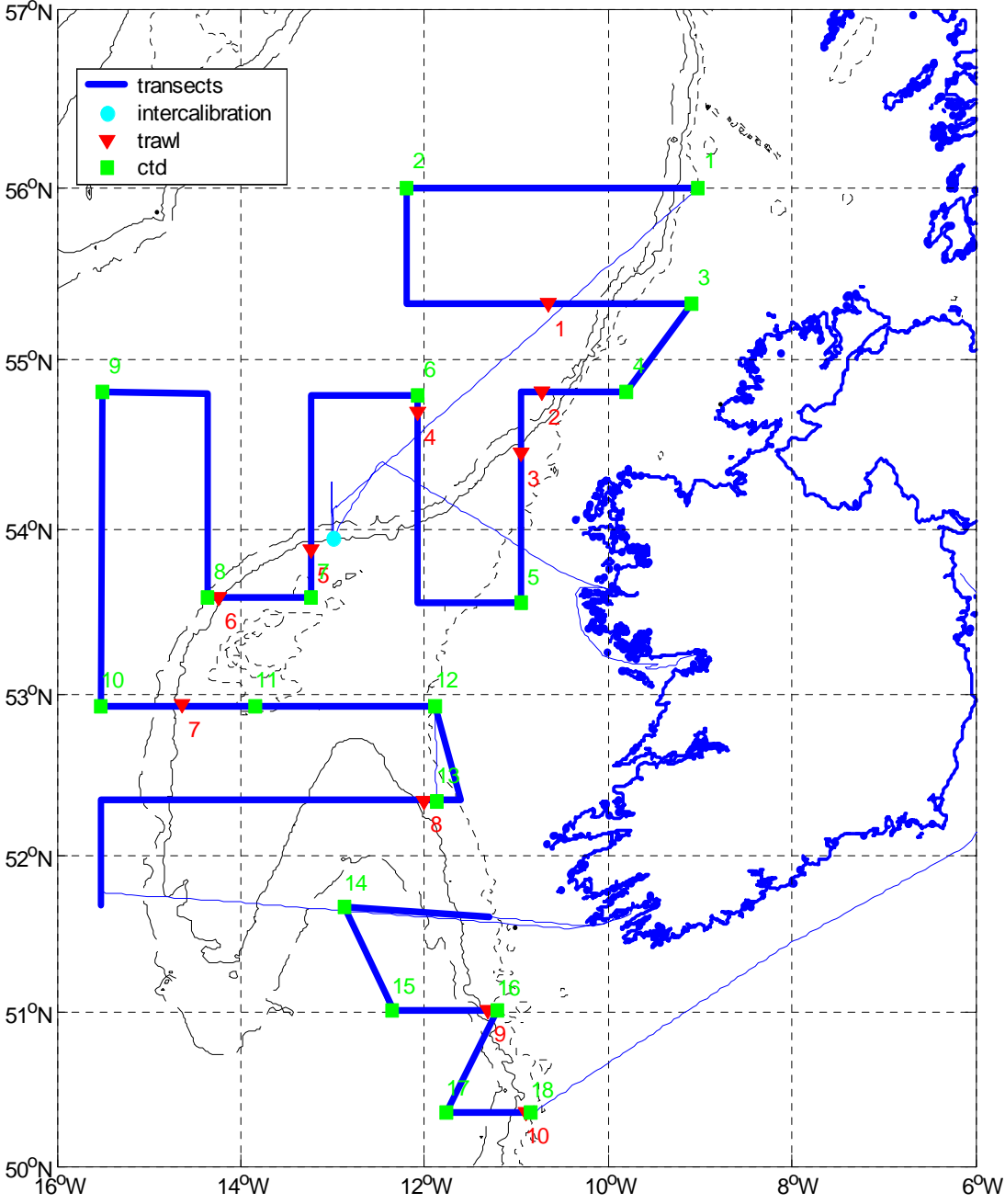


Figure 4 Proposed Station Positions for Juvenile Plaice Survey.

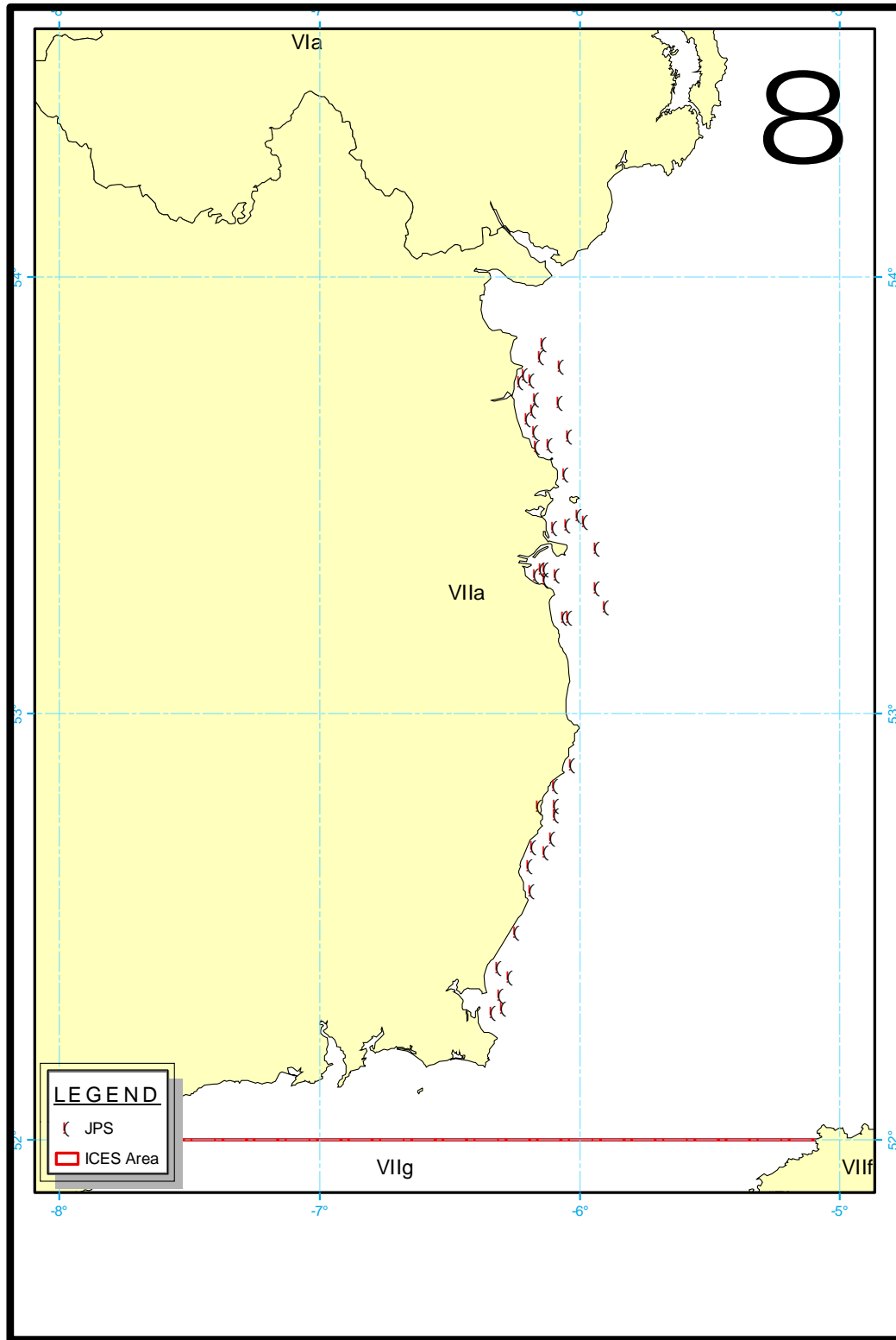


Table 1. Minimum Programme (MP) sampling requirement, schemes and exemptions under Regulation (EC) No 1639/2001 minimum community programme demersal fish stocks around Ireland.

Species	Area	Landings 99-01 into Ireland		% of International Catch	MP Sampling required		MP Sampling Scheme				Comment or Exemptions if applicable
		All vessels	Non Irish vessels		Length	Age	Length Effort	Length Level	Age Effort	Age Level	
Cod	I,II	349	0	1%	No	No	2	100	1	25	IRL <5% of int'l catch: too low to require sampling under MP
Cod	VI	408	0	8%	Yes	No	3	150	1	25	IRL <10% of int'l catch but no exemption from MP age sampling is requested
Cod	VIIa	594	0	15%	Yes	Yes	3	150	2	50	
Cod	VIIb-k,VIII,IX,X	1446	0	16%	Yes	Yes	8	400	3	75	
Haddock	VI	1547	0	7%	Yes	No	2	50	2	50	IRL <10% of int'l catch but no exemption from MP age sampling is requested
Haddock	VII,VIII,IX,X	3769	152	37%	Yes	Yes	19	950	8	400	
Hake	Vb,VI,VII,XII,XIV	4963	3408	13%	Yes	Yes	50	2500	10	500	
Lemon Sole	All areas	495	60	Unknown	No	No					Sampling not required under MP
Megrim	Vb,VI,XII,XIV	588	0	21%	Yes	Yes	6	300	2	100	
Megrim	VII	3772	1144	21%	Yes	Yes	38	1900	8	400	
Anglerfish	VI	622	0	13%	Yes	Yes	7	350	4	100	
Anglerfish	VII	6232	3228	26%	Yes	Yes	63	3150	32	800	
Plaice	Vb,VI,XII,XIV	255	0	36%	Yes	Yes	13	2600	13	650	

Table 1 continued. Minimum Programme (MP) sampling requirement, schemes and exemptions under Regulation (EC) No 1639/2001 minimum community programme demersal fish stocks around Ireland.

Species	Area	Landings 99-01 into Ireland		% of International Catch	MP Sampling required		MP Sampling Scheme				Comment or Exemptions if applicable
		All vessels	Non Irish vessels		Length	Age	Length Effort	Length Level	Age Effort	Age Level	
Plaice	VIIa	451	0	29%	Yes	Yes	10	2000	10	500	
Plaice	VIIbc	104	0	69%	No	No					Sampling not required under MP
Plaice	VIIfg	77	0	8%	No	No	2	400	2	100	IRL catch <200 T but no exemption from MP age sampling is requested
Plaice	VIIhjk	206	0	48%	No	No					Sampling not required under MP
Saithe	VI	370	0	5%	Yes	No	4	200	1	50	IRL <10% of int'l catch: too low to require age sampling under MP
Saithe	VII,VIII,IX,X	1253	67	28%	Yes	Yes	3	150	3	75	
Sole	Vb,VI,XII,XIV	39	0	80%	No	No	1	50	1	25	IRL catch <100 T but no exemption from MP sampling is requested
Sole	VIIa	149	0	17%	Yes	No	3	600	3	150	IRL catch <200 T but no exemption from MP age sampling is requested
Sole	VIIbc	58	0	92%	No	No	1	50	1	25	IRL catch <100 T but no exemption from MP sampling is requested
Sole	VIIfg	34	0	3%	No	No	1	200	1	50	IRL catch <100 T but no exemption from MP sampling is requested
Sole	VIIhjk	131	0	34%	Yes	No	1	50	1	25	IRL catch <200 T but no exemption from MP age sampling is requested
White Pollock	Vb,VI,XII,XIV	80	0	14%	No	No					Sampling not required under MP
White Pollock	VII	765	0	8%	No	No					Sampling not required under MP

Table 1 continued. Minimum Programme (MP) sampling requirement, schemes and exemptions under Regulation (EC) No 1639/2001 minimum community programme demersal fish stocks around Ireland.

Species	Area	Landings 99-01 into Ireland		% of International Catch	MP Sampling required		MP Sampling Scheme				Comment or Exemptions if applicable
		All vessels	Non Irish vessels		Length	Age	Length Effort	Length Level	Age Effort	Age Level	
Whiting	VI	903	0	21%	Yes	Yes	10	500	2	100	
Whiting	VIIa	348	0	12%	Yes	Yes	4	200	1	50	
Whiting	VIIb-k	5346	126	30%	Yes	Yes	54	2700	11	550	
Witch	VI	149	0	Unknown	No	No			1	25	Sampling not required under MP
Witch	VII	584	0	Unknown	No	No			1	25	Sampling not required under MP

Table 2. Minimum Programme (MP) sampling requirement, schemes and exemptions under Regulation (EC) No 1639/2001 minimum community programme pelagic fish stocks around Ireland.

Species	Area	Landings 99-01 into Ireland		% of International Catch	MP Sampling required		MP Sampling Scheme				Comment or Exemptions if applicable
		All vessels	Non Irish vessels		Length	Age	Length Effort	Length Level	Age Effort	Age Level	
Albacore Tuna	Combined	3800		12%	Yes	No	38	3800			
Blue whiting	Combined	30567		2%	No	No	31	1550	31	775	IRL <5% of int'l catch but no exemption from sampling is requested
Bluefin tuna	Combined	30		0%	No	No	1	100			IRL catch <100 T: too low to require sampling under MP
Herring	Celtic Sea	17867		95%	Yes	Yes	18	900	18	450	Sampling will be above the MP.
Herring	Irish Sea	860		23%	Yes	Yes	1	50	1	25	Sampling will be above the MP
Herring	Nor. Spring Spawning	4833		0%	No	No	5	250	5	125	IRL <5% of int'l catch but no exemption from sampling is requested
Herring	West of Ireland	18267		33%	Yes	Yes	19	950	19	475	Sampling will be above the MP
Horse Mackerel	Western	56867		23%	Yes	Yes	57	2850	57	1425	Sampling will be increased to meet MP
Mackerel	NEA	70103		11%	Yes	Yes	71	3550	71	1775	
Swordfish	Combined	50		0%	No	No	1	100			IRL catch <100 T: too low to require sampling under MP

Table 3. Minimum Programme (MP) sampling requirement, schemes and exemptions under Regulation (EC) No 1639/2001 minimum community programme *Nephrops* stocks around Ireland.

Species	Area	2002 Irish Landings	% of International Catch	MP Sampling required		MP Sampling Scheme				Comment or Exemptions if applicable
				Length	Age	Length Effort	Length Level	Age Effort	Age Level	
Nephrops	South Minch, FU 12	14	0%	No	No					IRL <5% of int'l TAC in Sub –area VI exemption from sampling FUs in this area is requested
Nephrops	Clyde, FU 13	0	0%	No	No					
Nephrops	Landings outside WG FUs, C	112	26%	No	No					
Nephrops	Landings outside WG FUs, D	0	0	No	No					
Nephrops	Irish Sea East, FU 14	203	35%	Yes	No	4	800			
Nephrops	Irish Sea West, FU 15	2283	33%	Yes	No	46	9200			
Nephrops	Porcupine Bank, FU 16	543	42%	Yes	No	11	2200			
Nephrops	Aran Grounds, FU 17	1152	99%	Yes	No	23	4600			
Nephrops	Ireland NW Coast, FU 18	14	100%	Yes	No	0	0			
Nephrops	Ireland SW and SE Coast, FU 19	1126	87%	Yes	No	23	4600			
Nephrops	Celtic Sea, FU 20-22	1489	32%	Yes	No	30	6000			
Nephrops	Landings outside WG FUs, L	119	48%	Yes	No	2	400			
Nephrops	Landings outside WG FUs, M	101	70%	Yes	No	2	400			

Table 4. Minimum Programme (MP) sampling requirement, schemes and exemptions under Regulation (EC) No 1639/2001 minimum community programme for deepwater species caught around Ireland.

Species	Area	Landings 99-01 into Ireland		% of International Catch	MP Sampling required		MP Sampling Scheme				Comment or Exemptions if applicable
		All vessels	Non Irish vessels		Length	Age	Length Effort	Length Level	Age Effort	Age Level	
Black scabbard		8		Unknown	No	No					Sampling not required under MP
Blue ling		246		Unknown	No	No					Sampling not required under MP
Conger eel		235		Unknown	No	No					Sampling not required under MP
Greater Forkbeard		817		Unknown	No	No					Sampling not required under MP
Greenland halibut		61		Unknown	No	No					Sampling not required under MP
Ling		1616		Unknown	Yes	Yes	2	100			
Migratory sharks		223		Unknown	Yes	Yes	2	200			Species include Thresher, Blue Tope, Cochon, Porbeagle and Mako Shark
Orange roughy		933		Unknown	Yes	Yes	1	50			
Ray / Skate		2103		Unknown	Yes	Yes	3	150			
Redfish		275		Unknown	No	No					Sampling not required under MP
Sea Bream		16		Unknown	No	No					Sampling not required under MP
Siki shark		154		Unknown	Yes	No					IRL catch <200 T: too low to require age sampling under MP
Spur Dog		944		Unknown	No	No					Sampling not required under MP
Tusk		91		Unknown	No	No					Sampling not required under MP

Table 5. Minimum Programme (MP) sampling requirement, schemes and exemptions under Regulation (EC) No 1639/2001 minimum community programme for other stocks caught around Ireland.

Species	Area	Landings 99-01 into Ireland		% of International Catch	MP Sampling required		MP Sampling Scheme				Comment or Exemptions if applicable
		All vessels	Non Irish vessels		Length	Age	Length Effort	Length Level	Age Effort	Age Level	
Brown / Edible Crab	VI, VII	8455		Unknown	Yes	No	43	2150			Age sampling not required under MP
Lobster	VI, VII	634		Unknown	Yes	No	1	50			Age sampling not required under MP
Razor-Shell	VI, VII	464		Unknown	No	No					Sampling not required under MP
Whelk	VI, VII	4512		Unknown	No	No					Sampling not required under MP

Table 6. Minimum Programme (MP) sampling requirement, schemes and exemptions under Regulation (EC) No 1639/2001 minimum community programme for discards around Ireland.

Species	Area	Av landings 99-01	Estimated discard weight	MP sampling required		MP Sampling Scheme				Comments
				Length	Age	Length Effort	Length Level	Age Effort	Age Level	
Cod	I,II (Norwegian waters)	349	5%	No	No	1	50	1	25	IRL <5% of int'l catch: too low to require sampling under MP
Cod	VI	408	5%	No	No	1	50	1	25	IRL <10% of int'l catch but no exemption from MP age sampling is requested
Cod	VIIa	594	5%	No	No	1	50	1	25	
Cod	VIIb-k,VIII,IX,X	1446	5%	No	No	1	50	1	25	
Haddock	VI	1547	49%	Yes	Yes	2	50	2	50	IRL <10% of int'l catch but no exemption from MP age sampling is requested
Haddock	VII,VIII,IX,X	3769	43%	Yes	Yes	14	700	6	300	
Hake	Vb,VI,VII,XII,XIV	4963	24%	Yes	Yes	16	800	4	200	
Lemon Sole	All areas	495	37%	No	No					Sampling not required under MP
Megrin	Vb,VI,XII,XIV	588	11%	Yes	Yes	1	50	1	50	
Megrin	VII	3772	23%	Yes	Yes	12	600	3	150	
Anglerfish	VI	622	3%	No	No	1	50	1	25	
Anglerfish	VII	6232	2%	No	No	2	100	1	25	
Plaice	Vb,VI,XII,XIV	255	35%	No	No	3	600	3	150	
Plaice	VIIa	451	64%	Yes	Yes	16	3200	16	800	
Plaice	VIIbc	104	7%	No	No					Sampling not required under MP
Plaice	VIIfg	77	56%	Yes	Yes	2	400	2	100	IRL catch <200 T but no exemption from MP age sampling is requested
Plaice	VIIIhk	206	40%	No	No					Sampling not required under MP

Table 6 continued. Minimum Programme (MP) sampling requirement, schemes and exemptions under Regulation (EC) No 1639/2001 minimum community programme for discards around Ireland.

Species	Area	Av landings 99-01	Estimated discard weight	MP sampling required		MP Sampling Scheme				Comments
				Length	Age	Length Effort	Length Level	Age Effort	Age Level	
Saithe	VI	370	10%	Yes	Yes	1	50	1	50	IRL <10% of int'l catch: too low to require age sampling under MP
Saithe	VII,VIII,IX,X	1253	10%	Yes	Yes	1	50	1	25	
Sole	Vb,VI,XII,XIV	39	5%	No	No	1	50	1	25	IRL catch <100 T but no exemption from MP sampling is requested
Sole	VIIa	149	5%	No	No	1	200	1	50	IRL catch <200 T but no exemption from MP age sampling is requested
Sole	VIIbc	58	3%	No	No	1	50	1	25	IRL catch <100 T but no exemption from MP sampling is requested
Sole	VIIfg	34	5%	No	No	1	200	1	50	IRL catch <100 T but no exemption from MP sampling is requested
Sole	VIIhjk	131	5%	No	No	1	50	1	25	IRL catch <200 T but no exemption from MP age sampling is requested
White Pollock	Vb,VI,XII,XIV	80	10%	No	No					Sampling not required under MP
White Pollock	VII	765	10%	No	No					Sampling not required under MP
Whiting	VI	903	31%	Yes	Yes	5	250	1	50	
Whiting	VIIa	348	82%	Yes	Yes	17	850	4	200	
Whiting	VIIb-k	5346	18%	Yes	Yes	12	600	3	150	
Witch	VI	149	17%	No	No			1	25	Sampling not required under MP
Witch	VII	584	17%	No	No			1	25	Sampling not required under MP
Albacore Tuna	Combined	3800	5%	No	No	2	200			
Blue whiting	Combined	30567	10%	Yes	Yes	4	200	4	100	IRL <5% of int'l catch but no exemption from sampling is requested

Table 6 continued. Minimum Programme (MP) sampling requirement, schemes and exemptions under Regulation (EC) No 1639/2001 minimum community programme for discards around Ireland.

Species	Area	Av landings 99-01	Estimated discard weight	MP sampling required		MP Sampling Scheme				Comments
				Length	Age	Length Effort	Length Level	Age Effort	Age Level	
Bluefin tuna	Combined	30	5%	No	No	1	100			IRL catch <100 T: too low to require sampling under MP
Herring	Celtic Sea	17867	5%	No	No	1	50	1	25	
Herring	Irish Sea	860	5%	No	No	1	50	1	25	
Herring	Nor. Spring Spawning	4833	5%	No	No	1	50	1	25	IRL <5% of int'l catch but no exemption from sampling is requested
Herring	West of Ireland	18267	5%	No	No	1	50	1	25	
Horse Mackerel	Western	56867	5%	No	No	3	150	3	75	
Mackerel	NEA	70103	5%	No	No	4	200	4	100	
Swordfish	Combined	50	5%	No	No	1	100			IRL catch <100 T: too low to require sampling under MP
Brown / Edible Crab	VI, VII	8455	5%	No	No	3	150			Age sampling not required under MP
Lobster	VI, VII	634	5%	No	No	1	50			Age sampling not required under MP
Razor-Shell	VI, VII	464	5%	No	No					Sampling not required under MP
Whelk	VI, VII	4512	5%	No	No					Sampling not required under MP
Nephrops	South Minch, FU 12	8	20%	No	No					IRL <5% of int'l TAC: too low to require sampling under MP
Nephrops	Clyde, FU 13	2	20%	No	No					IRL <5% of int'l TAC: too low to require sampling under MP
Nephrops	Irish Sea East, FU 14	97	20%	Yes	Yes	1	200			
Nephrops	Irish Sea West, FU 15	3570	20%	Yes	Yes	18	3600			

Table 6 continued. Minimum Programme (MP) sampling requirement, schemes and exemptions under Regulation (EC) No 1639/2001 minimum community programme for discards around Ireland.

Species	Area	Av landings 99-01	Estimated discard weight	MP sampling required		MP Sampling Scheme				Comments
				Length	Age	Length Effort	Length Level	Age Effort	Age Level	
Nephrops	Porcupine Bank, FU 16	402	20%	Yes	No	3	600			
Nephrops	Aran Grounds, FU 17	977	20%	Yes	No	5	1000			
Nephrops	Ireland NW Coast, FU 18	9	20%	Yes	No	1	200			
Nephrops	Ireland SW and SE Coast, FU 19	580	20%	Yes	No	3	600			
Nephrops	Celtic Sea, FU 20-22	1581	20%	Yes	No	8	1600			
Nephrops	Landings outside WG FUs, C	112	20%	No	No					IRL <5% of int'l TAC: too low to require sampling under MP
Nephrops	Landings outside WG FUs, D	1	20%	No	No					IRL <5% of int'l TAC: too low to require sampling under MP
Nephrops	Landings outside WG FUs, L	102	20%	Yes	No	1	200			
Nephrops	Landings outside WG FUs, M	28	20%	Yes	No	1	200			
Black scabbard		8	10%	No	No					Sampling not required under MP
Blue ling		246	10%	No	No					Sampling not required under MP
Conger eel		235	10%	No	No					Sampling not required under MP
Greater Forkbeard		817	10%	No	No					Sampling not required under MP
Greenland halibut		61	10%	No	No					Sampling not required under MP

Table 6 continued. Minimum Programme (MP) sampling requirement, schemes and exemptions under Regulation (EC) No 1639/2001 minimum community programme for discards around Ireland.

Species	Area	Av landings 99-01	Estimated discard weight	MP sampling required		MP Sampling Scheme				Comments
				Length	Age	Length Effort	Length Level	Age Effort	Age Level	
Ling		1616	10%	Yes	Yes	1	50			
Migratory sharks		223	10%	Yes	Yes	1	100			
Orange roughy		933	10%	Yes	Yes	1	50			
Ray / Skate		2103	10%	Yes	Yes	1	50			
Redfish		275	10%	No	No					Sampling not required under MP
Sea Bream		16	10%	No	No					Sampling not required under MP
Siki shark		154	10%	Yes	Yes					IRL catch <200 T: too low to require age sampling under MP
Spur Dog		944	10%	No	No					Sampling not required under MP
Tusk		91	10%	No	No					Sampling not required under MP

APPENDIX III : ECONOMIC DATA CAPTURE FORM 2004 and 2005

Fishing Fleet Activity and Costs (year ending 2003)

Vessel / Owner details

Name of vessel :	Port of Registry:
Registration No:	Registered Length (m):
Registered owner:	Date of birth (dd/mm/yy): ___/___/___
Address:	
Tel: (Home)	(Mob.) E-mail address:

Assets / Insurance

Year vessel purchased: _____

Purchase price of the vessel: € _____

Purchase price of tonnage/kW (if applicable): € _____

Insured value of the vessel for 2003: € _____

Estimated market value of the vessel (excl. tonnage/kW) in 2003: € _____

Cost of insuring the vessel for 2003 (sum of monthly payments): € _____

Fishing Expenses

Please estimate as accurately as you can this vessel's **running costs** in the year 2003. In the case of shared running costs associated with operating *more than one vessel*, please allocate an estimated proportion to this vessel.

Item	deducted	value (€)	
Fuel & Lube oil	<input type="checkbox"/>	_____	<i>(Please tick deducted boxes if the expense is deducted before crew / vessel payment)</i>
Food	<input type="checkbox"/>	_____	
Ice	<input type="checkbox"/>	_____	
Boxes/Bins	<input type="checkbox"/>	_____	
Bait	<input type="checkbox"/>	_____	<i>Note: crew costs are dealt with separately under the crew payment costs / employment</i>
Crew travel costs	<input type="checkbox"/>	_____	
Loan repayments	<input type="checkbox"/>	_____	
Other costs (incl. administration costs, accountant's fees, shore labour)	<input type="checkbox"/>	_____	

Please estimate this vessel's repairs and maintenance (A) and/or replacement or purchase (B) costs for the year 2003.

Item	deducted	value (€)		(tick deducted as above)
		(A)	(B)	
Hull of Vessel	<input type="checkbox"/>	_____	_____	
Engine	<input type="checkbox"/>	_____	_____	<i>(If this vessel received any grant aid for capital investments listed here please specify them under the income / catch details section <u>Question 31</u>)</i>
Gear repairs and replacements	<input type="checkbox"/>	_____	_____	
Refrigeration/freezing equipment	<input type="checkbox"/>	_____	_____	
Safety Equipment (e.g. Liferrafts)	<input type="checkbox"/>	_____	_____	
Electronic and similar equipment	<input type="checkbox"/>	_____	_____	
Lifting equipment	<input type="checkbox"/>	_____	_____	
Other(s)	<input type="checkbox"/>	_____	_____	

Please list the dues and levies paid in 2003, either as amount or % of Gross Revenue.

Item	€ value	% Gross
Harbour dues	_____	_____
Auctioneer's commission	_____	_____
Producer organisation levy	_____	_____
Agent's commission	_____	_____
Co-operative fee (state if this covers above dues/levies)	_____	_____

Crew costs

Total crew cost for 2003: € _____

Crew payment method: a share of the catch? a guaranteed wage plus
a fixed wage? a share of the catch?

If a share system what was the value of a single share: € _____

What was the total number allocated to the: **Crew:** _____ **Vessel:** _____

How many crew (incl. skipper) were there in total during 2003: _____

Please provide a breakdown of **crew numbers and costs** based on their position. Costs may be reported in value or as shares per individual

Position	Number employed	Shares per ind.	individuals wage (€)
Skipper	_____	_____	_____
Mate	_____	_____	_____
Engineer	_____	_____	_____
Deckhand	_____	_____	_____
Cook	_____	_____	_____
Trainee Engineer	_____	_____	_____
Trainee Deckhand	_____	_____	_____
Other	_____	_____	_____

Crew Structure

How many crew (incl. skipper) during 2003 were in the following age categories:

	16 - 20	21 - 30	31 - 40	41 - 50	51 - 60	60 +
Male	_____	_____	_____	_____	_____	_____
Female	_____	_____	_____	_____	_____	_____

Please indicate the number of crew under the following categories:

Full Time _____ Part Time _____ Casual _____

Full Time Crew: average of 30 hours/week throughout the year or >40 weeks/year or fishing is sole source of income ;

Part Time Crew: between 10 & 30 hours/week throughout the year or between 13 and 39 weeks of fishing related work 40 hours/week;

Casual Crew: <10 hours/week throughout the year or <13 weeks of fishing related work 40 hours / week

Please indicate the number of crew under the following categories:

Self employed _____ Employee _____

How many of the crew (incl. skipper) were:

Irish _____ EU _____ *EEA _____ Other _____

*EEA = refers to non-EU members of European Economic Area (i.e. Norway, Iceland or Liechtenstein)

Did this vessel operate a rotating crew system in 2003? Yes No

If so, how many crew were ashore per trip: _____

Number of crew members with certification(s):

Qualification	No. of crew	Qualification	No of crew
Skipper Full	_____	GMDSS GOC	_____
Second Hand Full	_____	GMDSS ROC	_____
Skipper Limited	_____	GMDSS LRC	_____
Second Hand Special	_____	GMDSS SRC	_____
Second Hand Limited	_____	3 day basic safety	_____
Engineer Class 1	_____	Others (specify)	_____
Engineer Class 2	_____	1)	_____
Engineer Class 3	_____	2)	_____
Comm. Fishing Cert*	_____	3)	_____

(* formerly BIM's Deckhand course)

Income / catch details

Vessel's gross value of landings for 2003? € _____

Vessel's net value of landings for 2003? € _____

Please supply information on the tonnage and value of the species landed by this vessel in 2003.

Pelagic			Demersal			Shellfish		
	Tonnage	value (€)		Tonnage	value (€)		Tonnage	value (€)
Blue Whiting			Halibut			Blue Mussel		
Herring			John Dory			Brown Crab		
Horse Mackerel / Scad			Lemon Sole			Clam		
Mackerel			Ling			Crawfish		
Pilchard			Megrim			Green Crab		
Sprat			Monk/Angler			King Scallop		
Tuna			Mullet			Lobster		
			Orange Roughy			Nephrops (prawns)		
			Plaice			Oyster		
			Ray / Skate			Queen Scallop		
			Red fish			Razor-shell		
			Saithe / Black Pollock			Shrimp		
			Scabbard			Spider Crab		
			Sea Bream			Squid		
			Siki Shark			Whelk		
			Turbot			Velvet Crab		
			White Pollock					
			Salmon					
			Whiting					
			Witch					

Did this vessel receive any grant aid or equipment (e.g. nets, pots) from BIM in the year 2003?

Yes No

If so, please specify amounts and details of the aid/equipment:

Grant aid: amount: € _____ purpose: _____
 Equipment: amount: € _____ purpose: _____

Please give details of any other funding that contributed to this vessel's running/operational costs?
 (e.g. funding for scientific survey work/development trials)

amount: € _____ purpose: _____
 amount: € _____ purpose: _____

By what means is this vessel's catch usually sold?

Main Market for Catch	% of catch sold
Auction	_____
Direct to processors	_____
Contract	_____
Direct to retail	_____
Direct to catering	_____
Co-op	_____
Other	_____
Total	100%

Fishing Activity

Please state what proportion of the vessel's fishing time in 2003 was spent on each fishing gear.

Fishing gear	% time	Fishing gear	% time
Mobile			
Single boat whitefish trawl	_____	Single boat pelagic/semi-pelagic	_____
Twin rig whitefish trawl	_____	Beam Trawl	_____
Single boat nephrops trawl	_____	Dredging (shellfish)	_____
Twin rig nephrops trawl	_____	Scottish Seine	_____
Pair trawl demersal	_____	Pair Seine	_____
Pair trawl pelagic	_____	Other mobile gears	_____
Passive			
Longline	_____	Pots and Creels	_____
Demersal gill nets	_____	Jigging/Handlining	_____
Trammel nets	_____	surface drift nets	_____
Tangle nets	_____	Other passive gears	_____

Please state the area(s) and percentage of days spent fishing in those area(s) during 2003.

ICES Area	% time fishing			
	<i>Jan - March</i>	<i>April - June</i>	<i>July - Sept.</i>	<i>Oct. - Dec.</i>
(e.g. Area VIIj (South West Coast))	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
<i>Ensure Total for each time period = 100%</i>	100%	100%	100%	100%

Please provide information relating to fishing trips in 2003.

	<i>Jan - March</i>	<i>April - June</i>	<i>July - Sept.</i>	<i>Oct. - Dec.</i>
Number of trips in 2003:	_____	_____	_____	_____
Average distance to fishing grounds:	_____	_____	_____	_____
Average fishing time on the grounds:	_____	_____	_____	_____
Average steaming time to/from fishing grounds :	_____	_____	_____	_____
Average steaming time between fishing grounds :	_____	_____	_____	_____

What is your home port: _____

Please supply estimates of percentage of time the vessel spent fishing out of individual ports during 2003; include the vessels home port.

Port Name	% of time	Port Name	% of time
Home port	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Please supply information on the vessels gear configuration:

Fishing method	Gear type	details
Trawlers (incl. beam, nephrops, pelagic, whitefish, twin-rig, trawl)	*Fishing Circle Measurement (m)	_____
	Codend Mesh Size (mm)	_____
	Codend Twine size (mm)	_____
	Square mesh panel	Yes / No
	Separator panel	Yes / No
	Bridle length: single (ftm/m)	_____
	double (ftm/m)	_____
	Extension length (ftm/m)	_____
	Aggregate beam length (only beam trawlers) (ftm/m)	_____
	Door spread (ftm/m)	_____
	Door type and size	_____
	Wing spread (ftm/m)	_____
	usual headline height(ftm)	_____
Seine	*Fishing Circle Measurement (m)	_____
	Codend Mesh size (mm)	_____
	Codend Twine size (mm)	_____
	Number of coils of seine carried	_____
	Bridle length (ftm/m)	_____
Long line	Number of lines deployed	_____
	Average length of each line (ftm/m)	_____
	Number of hooks per line	_____
Pots/Creels	Pot/Creel type	_____
	Do you use pot toggles	Yes / No
	Number of pots/creels fished	_____
	Average length set/string (ftm/m)	_____
	Distance between pots/creels (ftm/m)	_____
	Vivier Tanks	Yes / No
If Yes, Capacity (metres cubed)	_____	
Dredges	Type of dredge (e.g. scallop)	_____
	Length of dredge (ftm/m)	_____
	Number of dredges each side	_____
Netting (Gill/Set)	Mesh size (mm)	_____
	Hanging ratio	_____
	Usual soak time (days)	_____
	Total length of net deployed (ftm/m)	_____
	How many strings?	_____
	Depth of net (headline to footrope) (ftm/m)	_____

* Fishing Circle Measurement - (No. Meshes x Mesh Size)
ftm = fathoms



ECONEPH

Ecosystem benefits of Technical Measures in the Western Irish Sea Nephrops fishery

Background

In spite of efforts by fishermen and semi-state agencies to modify fishing gear through technical conservation measures (TCMs), accidental bycatch of juvenile whiting in the Irish Sea Nephrops fishery gives cause for concern.

This is thought to be because:

Conservation benefits are simply not measurable using current stock assessment techniques.

Scientists do not routinely collect data to evaluate TCMs.

Uptake of TCMs by fishermen have been poor.

Industry and scientists have not been working together to evaluate and critically review the implications of TCMs in the context of the Irish Sea.

Nevertheless, the Irish fishing industry believes that TCMs are critical to rebuild stock. They also believe that recent management measures introduced by the EC (namely the closure of all Irish Sea Fisheries for cod and whiting) have made matters worse.

The Problem of Discarding

Several fish stocks in the Irish Sea have deteriorated to the extent that the EU's Advisory Committee on Fisheries Management have advised the closure of all Irish Sea fisheries that target cod or whiting.

Despite the modifications of gear to reduce unwanted catches of juvenile fish, there is still cause for concern.

This joint project between the Marine Institute, the IFPO and BIM aims to address this concern.



What is Needed?

If Ireland is to prove that TCM's have an important role in rebuilding stocks and protecting the ecosystem, the following actions are needed:

1. Accurate determination of the degree to which each TCM is being adopted by the main fleets.
2. Communication of the effectiveness of TCMs back to all stakeholders, to promote increased uptake and further improvements through modification.
3. Setting of theoretical targets through simulation studies, so as to inform the management decisions of all stakeholders in a progressive management framework - which might be carried out through the proposed EU Regional Advisory Councils (RACs).
4. Creation of greater transparency / co-operation between scientists and industry in the assessment and advisory process.

The Project

The objectives of ECONEPH are:

- To agree on the main types of fishing gear and how they are used in the Irish Sea as well as the discard rates of key fish species as related to gear used by self-sampling by industry.
- To improve estimates of discards used in stock assessments.
- To quantify the potential effects of different gears on discard rates as well as the effect of change of use, so as to improve exploitation rates and reduce discards.
- To compare actual and theoretical improvements.
- To communicate the results to all stakeholders.