

*Department of Agriculture Food and Marine
Agriculture House, Kildare Street, Dublin 2, Ireland*

*The Marine Institute, Fisheries Ecosystems Advisory Services,
Rinville, Oranmore, Galway, Ireland*

*An Bord Iascaigh Mhara (Irish Sea Fisheries Board),
Crofton Road, Dun Laoghaire, Co Dublin, Ireland*

EU Council Regulation 199/2008

*Concerning the establishment of a community framework for the collection, management
and use of data in the fisheries sector and support for scientific advice regarding the
Common Fisheries Policy*

Annual Report 2012 IRELAND
--

23rd May 2013

I. General framework	3
II. National data collection organisation	4
II.A National correspondent and participating institutes	4
II.B Regional and International coordination	8
II.B.1 Attendance of international meetings	8
II.B.2 Follow-up of regional and international recommendations	9
III. Module of the evaluation of the fishing sector	11
III.A General description of the fishing sector	11
III.B.2 Data quality: Results and deviation from NP proposal	15
III.B.3 Follow-up of Regional and international recommendations	16
III.B.4 Actions to avoid shortfalls	17
III.C Metier-related variables	19
III.C.1 Achievements: Results and deviation from NP proposal	19
III.C.2 Data quality: Results and deviation from NP proposal	20
III.D Recreational fisheries	35
III.D.1 Achievements: Results and deviation from NP proposal	35
III.D.3 Follow-up of Regional and international recommendations	40
III.D.4 Actions to avoid shortfalls	41
III.E Stock-related variables	42
III.E.1 Achievements: Results and deviation from NP proposal	42
III.E.2 Data quality: Results and deviation from NP proposal	44
III.E.3 Follow-up of Regional and international recommendations	45
III.E.4 Actions to avoid shortfalls	47
III.F Transversal variables	48
III.F.1 Capacity	48
III.F.1.1 Achievements: Results and deviation from NP proposal	48
III.F.1.2 Data quality: Results and deviation from NP proposal	48
III.F.1.3 Actions to avoid shortfalls	48
III.F.2 Effort	48
III.F.2.1 Achievements: Results and deviation from NP proposal	48
III.F.2.2 Data quality: Results and deviation from NP proposal	50
III.F.2.3 Follow-up of Regional and international recommendations	51
III.F.2.4: Actions to avoid shortfalls	51
III.F.3 Landings	51
III.F.3.1 Achievements: Results and deviation from NP proposal	51
III.F.3.2 Data quality: Results and deviation from NP proposal	52

III.F.3.3 Follow-up of Regional and international recommendations.....	52
III.F.3.4 Actions to avoid shortfalls	52
III.G Research surveys at sea.....	53
III.G.1 Achievements: Results and deviation from NP proposal.....	53
III.G.2 Data quality: Results and deviation from NP proposal	61
III.G.3 Follow-up of Regional and international recommendations	61
III.G.4 Actions to avoid shortfalls.....	61
IV. Module of the evaluation of the economic situation of the aquaculture and.....	62
processing industry	62
IV.A Collection of data concerning the aquaculture	62
IV.A.1 Achievements: Results and deviation from NP proposal.....	62
IV.A.2 Data quality: Results and deviation from NP proposal	63
IV.A.3 Follow-up of Regional and international recommendations	63
IV.A.4 Actions to avoid shortfalls.....	63
IV.B Collection of data concerning the processing industry	64
IV.B.1 Achievements: Results and deviation from NP proposal.....	64
IV.B.2 Data quality: Results and deviation from NP proposal	64
IV.B.3 Follow-up of Regional and international recommendations	65
IV.B.4: Actions to avoid shortfalls.....	65
V. Module of evaluation of the effects of the fishing sector on the marine ecosystem.....	66
V.1 Achievements: Results and deviation from NP proposal	66
V.2 Actions to avoid shortfalls	67
VI. Module for management and use of the data.....	68
VI.1 Achievements: Results and Deviations from the NP Proposal.....	68
VI.2 Actions to avoid shortfalls	72
VII. Follow-up of STECF recommendations.....	73
VIII. List of acronyms and abbreviations	79
IX. Comments, suggestions and reflections.....	82
X. References	82
XI. Annexes – Bi – Lateral Agreements.....	84

I. General framework

The Marine Institute has been delegated responsibility by its parent government department, Department of Agriculture Food and Marine (DAFM) to organise and co-ordinate Ireland's obligations under the DCF and the MI has therefore compiled this document as the Annual Report on 2012 sampling activity for Ireland. This programme addresses the following; Article 7 of Council Regulation 199/2008, Article 5 of Commission Regulation 665/2008 and the Annex of Commission Decision 2010/93/EU. The general framework presented adheres to the most recent guidelines, (version March 2013) as agreed and circulated by the European Commission.

No Major methodological changes have been made during 2012

Below is an updated list of derogations for Ireland.'

Short Title of derogation	NP Proposal section	Type of data - variables	Region	Derogation approved or rejected	Year of approval/rejection	Reason/justification for derogation
Derogations to sample discards from specific fisheries. Full list given in section III.C.6 of the NP 2011 - 2013	Section III.C	Discard samples	North Atlantic	Approved	2012	Low effort levels (<20 days) within métiers and the inability to identify these trips in advance. No directed deep water fishery since 2009.

Short Title of derogation	NP Proposal section	Type of data - variables	Region	Derogation approved or rejected	Year of approval/rejection	Reason/justification for derogation
Recreational Fisheries sampling of Sea Bass	Section III.D	Biological sampling of recreational fishery	North Atlantic	Approved	2012	Largely catch and release fishery, with very low levels of removals. Supported by Pilot study results
Recreational Fisheries sampling of Eel	Section III.D	Biological sampling of recreational fishery	North Atlantic	Approved	2012	Recreational eel fishing is now only carried out by a minority of rod anglers on a catch and release basis, hence there are no removals from the fishery
Recreational Fisheries sampling of Sharks	Section III.D	Biological sampling of recreational fishery	North Atlantic	Approved	2012	Recreational fishing is small and dispersed and species are fished on a catch and release basis and therefore there are no removals from the fishery.

II. National data collection organisation

II.A National correspondent and participating institutes

National Correspondent for Ireland

Dr. Frank O' Brien,

The Marine Institute (MI)
Fisheries Ecosystems Advisory Services,
Rinville,
Oranmore,
Co. Galway.
IRELAND
Phone: 00353 91 387200
Fax: 00353 91 387201
Frank.obrien@marine.ie

Participating Institutes

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

Department of Department of Agriculture, Food and Marine (DAFM)

DAFM is the main governmental department with responsibility for sea fisheries policy, and management.

The Dept.of Agriculture, Food and Marine.

Agriculture House,

Kildare Street,

Dublin 2.

Phone : 00353 1 6072000 also 1890 200 510.

Fax : 00353 1 6782449

www.DAFM.gov.ie

The Marine Institute (MI)

The MI is a semi state marine research organisation charged by DAFM with the collection of scientific data on the fisheries sector.

The Marine Institute

Rinville,

Oranmore.

Co. Galway

Phone: 00353 91387200

Fax : 00353 91387201

www.marine.ie

An Board Iascaigh Mhara (BIM – The Irish Sea Fisheries Board)

BIM is a semi state sea fisheries development agency charged by DAFM with the collection of economic data on the fisheries sector.

Board Iascaigh Mhara

PO Box 12

Crofton Road.

Dun Laoghaire

Co. Dublin.

Phone : 00353 1 2144100

Fax : 00535 1 2144119

www.bim.ie

A **National Data Collection Framework portal website** for the dissemination of information on DCF related activities by Ireland has been established in accordance with Commission Regulation (EC) 665/2008 Article 8(2): and can be accessed at the following web link:

www.dcmmap-ireland.ie

National Co – Ordination

A National Co – Ordination meeting was held in Limerick city, on the 22nd of June 2012 to ensure all participating institutes were clear on their roles and responsibilities regarding the DCF programme. The Commission was also invited to participate.

Main Outcomes.

- SGRN Comments on the 2011 Annual Report Submission were discussed and actioned.
- All inputs to 2012 reports: cost statement/annual report and the clarifications required for the 2011 – 2013 NP: 2013 revisions were discussed, coordinated and agreed. And as a consequence all supporting information requested was submitted on time.
- The EU Commission decisions on fines and data deficiencies in relation to Ireland were also discussed, and a response was agreed.
- Progress reports on tasks for the present year were discussed and corrective actions agreed if not on track.

- Updates were provided on the Regional database, DGMARE/MRAG “Evaluation contract on DCF” on 2009-2012 case study, and progress towards the new DC-MAP.
- A strategy was discussed and agreed on how to integrate with the new Electronic Recording and Reporting System (ERS) to ensure relevant access to the logbook data.

II.B Regional and International coordination

II.B.1 Attendance of international meetings

During 2012 Ireland participated fully at the relevant ICES planning groups, study groups, working groups, regional co-ordination meetings and workshops which are directly related to data collection requirements under Commission Regulation (EC) 199/2008.

Attendance at International meetings in 2012 is described in Table II.B.1. The following are meetings where Ireland had planned to participate but could not in 2012:

National Correspondents Meeting 2012-02

Ireland's National Correspondent was ill and in hospital, so could not attend the July meeting.

National Correspondents Meeting 2012-03

Originally a third meeting was scheduled for December, however this meeting was postponed.

Regional database training workshop - North Atlantic (29 May-1 June, Copenhagen)

Ireland originally intended to participate at this workshop, however Ireland was not able to attend. Ireland has attended a previous regional database training workshop, and are an active member of the regional database steering committee and as such are fully up to date on all developments.

Study Group on Calibration of Acoustic Instruments in Fisheries Science (SGCal) (Brest, 2-3 April)

Ireland had anticipated attending this study group, however it was cancelled in 2012.

Workshop on transversal data collection (i.e. common understanding and statistical methodologies to estimate/re-evaluate them, with a special focus on the small-scale fisheries)

Ireland had fully anticipated attending this workshop, however it was cancelled in 2012.

II.B.2 Follow-up of regional and international recommendations

Below are the recommendations of the 8th Liaison Meeting, which Ireland participated at in 2011, and whose recommendations were actioned in 2012. These recommendations do not specifically fall under the various module headings and are therefore reported here. The remaining recommendations can be found in the relevant module under the heading “Follow – up of Regional and International recommendations”.

Ireland does not participate at any other RCM, as the vast majority of our fisheries are in the North Atlantic. Ireland has never attended the RCM NS & EA, as Irish fishing activity in the North Sea in recent years has been limited to pelagic fisheries and some crab potting in the central North Sea, accounting for between 5 – 8% of Irish landings, and accounting for <1% of the total fishing effort in this area. It is clear that under these circumstances Ireland can have no meaningful contribution to make at the RCM NS & EA, and we would ask that our non attendance at this meeting is considered reasonable.

2011 Liaison Meeting Recommendations, actioned in 2012.

LM 42 - Metier variables : Regional ranking / RDB	
RCM NA 2011 Recommendation	RCM NA recommends that all MS investigate data loaded to RDB under metier 'No_logbook' and replace with the agreed code given in section 3.1 and request the RDB steering group to endorse these as the only permitted entries within the fields defined.
Follow-up actions needed	Resubmit data into the regional database after correction
Responsible persons for follow-up actions	All MS
Time frame (Deadline)	July 2012
LM 2011 comments	See RCM Baltic recommendation
Ireland Response	Completed

LM 43 - Metier variables : Regional ranking/ RDB	
RCM NA 2011 Recommendation	RCM NA recommended the use of the standard code MIS_MIS_0_0_0 to replace 'No_Matrix' for fisheries not specified in Annex IV of the Commission Decision.

Follow-up actions needed	Resubmit data into the regional database after correction
Responsible persons for follow-up actions	All MS
Time frame (Deadline)	July 2012
LM 2011 comments	See RCM Baltic recommendation
Ireland Response	Ireland's Data was submitted as requested.

LM 48 - Quality issues: use of FishFrame as regional database	
RCM NS&EA 2011 Recommendation	The RCM NS&EA recommends that that all MS respond to the data call in 2012 from the chair of RCM NS&EA and load their data to FishFrame or make it available in the FishFrame format. This data call will include Commercial Landings(CL), Commercaill Effort (CE) and Commerical Samples (CS) records for 2010 and 2011.
Follow-up actions needed	MS to have responded to the data call. If issues persist then ICES to inform the chair of RCM NS&EA
Responsible persons for follow-up actions	All MS and chair of RCM NS&EA
Time frame (Deadline)	Data call in February 2012 and then deadline 4 months later
LM 2011 comment	See RCM Baltic recommendations.
Ireland Response	Ireland provided all requested data to the RCM Data Call.

LM 51 - Data needs for the provision of improved scientific advice in the areas of competence of the different RFMOs	
RCM LDF 2011 Recommendation	The Group supports the establishment of a long distance experts group for the preparation of the forthcoming DCF which fully address the data needs in relation to ALL the RFMOs for which the EU is contracting party.
Follow-up actions	Experts meeting to be convened well before the adoption of the future multiannual programme
Responsible persons for	DG MARE & concerned MS

LM comment	LM recommends that this issue be dealt with by an STECF EWG on the revision of the DCF, preferably during the first half of 2012. The data end-users have to be fully involved in this process.
Ireland Response	Ireland has participated fully in all EWG meetings reviewing the new DC-MAP

III. Module of the evaluation of the fishing sector

III.A General description of the fishing sector

The Irish fishing fleet consists of a little over 2,169 vessels and is divided into 5 segments; polyvalent, pelagic trawl, specific bivalve, aquaculture and beam trawl. Inshore vessels (<10m) are also sampled under the DCF and are included in the polyvalent, specific bivalve and aquaculture segments. There are about 6,000 people working in the fishing fleet associated activities. The majority of Irish fishing, data collection and sampling activity is concentrated the ICES Sub-areas around Ireland VI and VII where Irish vessels are engaged in demersal, pelagic, industrial, shellfish, deep water and tuna-like fishes (Table III A 1). The pelagic fishery targeting mackerel and horse mackerel also operates in the II, IIIa, IV. Some pelagic landings in those fisheries are landed in the UK–Scotland and Norway where scientists in those countries sample them. There are minor demersal and deepwater fisheries in II and IV where Ireland has a small share of an EC quota for cod and other species in Norwegian waters. There are no fisheries for eel and the fishing for salmon is now mainly recreational but with a commercial component. There is a shore based and vessel based marine recreational fishery.

The national decommissioning schemes in 2006 and 2008, removed 18% of the total capacity expressed in gross tonnes. However, the percentage removed varied considerably across métiers; with the Scottish Seine (SSC) and the Beam Trawl fleet (TBB) seeing over 50% of the 2007 levels removed, this has had an impact on sampling opportunities for both these gear groups.

In response the Cod Management Plan (EC regulation 1342/2008), the use of species selective gears to minimise the capture of cod by-catches has become mandatory for all Irish vessels targeting *Nephrops* in the Irish sea since March 2012. Vessels can opt to chose one of two devices, namely the ‘Swedish Grid’ or

the ‘Inclined Separator Panel’ In 2012, 12 vessels opted to use the Swedish grid 25 vessels used the Inclined separator pane. The use of Grids in 2013 has increased further. All vessels using the Swedish Grid are exempted from effort constraints as it is demonstrated that they maintain cod catches below 1.5%, in accordance with article 11.3 of 1342/2008 but are required (EU regulation 237/2010) to be subject to an elevated sampling programme. The vessels using Swedish grids and separator panels are considered as a separate metier for sampling purposes as their catch composition are different

Given the shift towards more selective gears, it is necessary to treat these as discrete metiers from a catch sampling perspective. Given the poor status of cod in ICES division VIa and division VIIa, effort restrictions are considered likely to continue at the rate of 25% per year. It is highly likely that this will result in behavioural and technological changes in fishing patterns and as a consequence, the Irish sampling programme will need to adapt accordingly.

III.B Economic variables

Baltic Sea (ICES areas III b-d), North Sea (ICES areas IIIa, IV and VIIId) and Eastern Arctic (ICES areas I and II), and North Atlantic (ICES areas V-XIV and NAFO areas)

III.B.1 Achievements: Results and deviation from NP proposal

See tables III.B.1, III.B.2 and III.B.3 for information collected during the sampling year.

The data sources for the implementation of the NP are:

- Fleet register information from the Community Fishing Fleet Register;
- Fleet register information from the Department of Agriculture, Food and the Marine (DAFM);
- Log sheet information from the Sea Fisheries Protection Authority (SFPA) of DAFM;
- Voluntary questionnaire information, returned from vessel owners targeted for the annual economic survey;
- Mandatory questionnaire information, returned from vessel owners when applying for government grant aid;
- End of year accountant’s reports, from certified accountants, containing income and earnings and balance sheet details;

The structure of the fishing fleet, for 2011 (Table III.B.1), represents all active vessels over 10m in length and all vessels (i.e. active and inactive) on the Community fishing fleet register under 10m fleet, as it is not possible to accurately estimate the inactivity in this segment. The fleet segmentations presented in Table III.B.1 deviate from those presented in the National Programme and have been updated to match the

fleet segment clustering used for the 2013 DCF economic data submission to the Joint Research Council (JRC) for years 2008-2011. Clustering was carried out following the methodologies required by the DCF and STECF recommendations.

The following data sources have been used to segment the fleet:

- EU Fleet Register on the 1st January of the reference year;
- EU log-book activity records for vessels active in the reference year (>10 metres LOA);
- Expert knowledge of fishing activities;
- Recorded fishing activity from previous economic surveys.

To support the postal survey of the national fleet, the MS actively engaged with Producer Organisations to provide administrative support to their members to complete the data request for 2011. Data collection for 2010 data was also initiated in 2011 to reduce the lag period for data within the MS National programme from two years to one year. This action is in agreement with the recommendations of the STECF and the Commission.

In addition, the MS continued to operate a system of data collection, whereby all vessel owners were required to submit DCF data with all applications for EU and National grant aid. These actions contributed significantly to the successful achievement of the data collection strategy by the MS.

As in previous years, the timing of the 2012 survey was scheduled to coincide with the final date for submission of tax returns for the previous financial year. This was intended to encourage the active participation of fishermen and their accountant's in providing the relevant data at a single and convenient time of the year. The survey was sent to all active vessels over 10m on the 1st November 2012.

The majority of 2011 survey returns were received by January 2013 with co-operation from the Producer Organisations. Assistance was sought from Industry representatives and Producer Organisations to increase survey returns. DCF staff also discussed the issue of low DCF Survey returns at a sub-group meeting of The Irish Fisheries Science Research Partnership (IFSRP) on the 21st November 2012 where a positive, measured response was received from industry members.

The MS launched an internationally recognised, third party accredited; "Responsibly Sourced" standard for wild seafood in 2010. This programme is now fully accredited to ISO65 and to date 80 vessels have

achieved certification. A requirement in the achievement of this standard is the provision of economic data in compliance with the DCF regulation. As vessels of the national fleet engage with this programme, the rate of DCF survey returns is expected to increase.

Estimation of capital value and capital costs

In accordance with Appendix VI of Commission Decision (2008/199/EC), the Perpetual Inventory Method (PIM) was applied to estimate capital value and costs for each of the fleet segments in Table III.B.1. The following input parameters (required by the STECF model) were estimated;

- Selected capacity unit,
- Price per capacity unit,
- Share in total investment ,
- Government bonds,
- Market rate for loans.

Capacity indicators and capital value was estimate for those vessels that responded to the annual survey. This was a deviation from the NP. In future, capacity indicators and capital value will be estimated for all vessels on the register, regardless of their activity. The following sources will be used to estimate the input parameters to the PIM model:

- Questions on fixed assets, investments, and depreciation from the annual economic survey,
- EU fleet register,
- EU log-book data,
- Sentinel vessel programme.

Specifically, the following methods, in accordance with the PIM methods and advice provided at PGECON meeting in April 2012, are used to determine capital value:

- Book value (depreciated value of capital at acquisition prices) is the reference value used in the estimation of the Price per Capacity unit;
- Calculation of gross historical value (observed depreciated historical value + cumulated depreciation costs);

Depreciation rates are indicated on the balance sheet provided by each vessel. For vessels with no survey returns, the depreciation schedules permitted by national tax laws were used to estimate depreciation.

The following service lives are used for macro economic analysis:

- Hull – 25 years;
- Engine – 10 years;
- Electronics – 5 years;
- Other equipments – 7 years.

Agreed values for share of each asset on the total value of capital were taken from No FISH/2005/03, Evaluation of the Capital Value, Investment and Capital Cost in the Fisheries Sector.

Estimation of Employment

In accordance with Appendix VI, a harmonised FTE was estimated for each of the fleet segments in Table III.B.1. For vessels >10 meters in length (LOA), operational data from log-book submissions was used in the estimation of fishing time on a trip-by-trip basis. In addition, several questions on the annual economic survey forms that deal specifically with hours worked, both at sea and in land-based activities associated with fishing, were used to provide additional detail.

Deviation from NP proposal

Although the operation of the economic aspect of the data collection framework has been much improved relative to previous years, the MS sampling targets were not fully achieved in 2012 (for 2011 data).

Lacking a mandatory European legislative instrument to direct compliance with DCF data requests, the MS continues to be forced to rely on the goodwill of the seafood industry to provide data on a voluntary basis. This situation is far from ideal and as a result, survey response rates are highly variable and unpredictable. Without incentive, this unstable situation is likely to persist.

In 2009, a comprehensive coverage of the fleet under 10m LOA was achieved and in 2010 the programme was revised and a new logbook designed and printed for data collection in 2011 and 2012.

III.B.2 Data quality: Results and deviation from NP proposal

See tables III.B.3 with the values of the accuracy indicators.

Deviation from NP

Due to the voluntary nature of the national survey, it was not possible to guarantee that the sampling levels of the national programme were achieved. The actions of the MS in the encouragement of the industry to provide DCF returns resulted in the over-achievement of sampling targets in a number of segments and an under-achievement of targets in other segments. The total number of returns for vessels from the voluntary survey exceeded the sampling target total and this is regarded as a positive achievement by the MS and a first indication of recognition from the industry.

Coefficient of Variation is reported for the observed sample. Due to historically low response rates to the survey, all vessels greater than 10m (LOA) were targeted in the 2012 survey. Sampling theory cannot be applied, therefore, nor the precision of the data ascertained.

III.B.3 Follow-up of Regional and international recommendations

In the absence of direct comment on the economic and transversal components of the DCF from the NA RCM in 2010, the MS has actively engaged with the Commission (i.e. Joint Research Centre) in the resolution of data issues.

PGECON Recommendations:

Three national experts, representing the fishing, aquaculture and processing sectors attended the PGECON meeting in 2011. This meeting identified the need for further action in a number of areas. These were addressed and an additional workshop was held in 2012 where IRL provided data and participated remotely for the duration of the meeting. Specific recommendations, from PGECON, that warrant a response are as follows;

Issue: Common understanding of the Ecosystem Indicator: Fuel Efficiency of fish capture (App. XIII EU Decision 93/2010)

DCF requires the calculation of 9 ecosystem indicators, as reported in Appendix XIII of the Commission Decision 93/2010. Indicator number 9 “Fuel efficiency of fish capture” is defined by DCF as “Indicator of the relationship between fuel consumption and the value of landed catch. It will provide information on trends in the fuel efficiency of different fisheries”. The group recognized that most of the countries do not calculate the fuel efficiency indicator or asked for derogation. Moreover, Appendix XIII is confused on the concept, as it defines a relationship with fuel consumption but requests fuel cost data

The group concluded that the estimation of the fuel efficiency as required by the present DCF will require the implementation of a specific survey for the collection of fuel cost data by métier, sub area and quarter. However, the group considered that the same indicator could be calculated using estimated data rather than collected data. An evaluation of the necessity of this indicator as a measure of the impact of fishing activity on the ecosystem is required. End users and the

Commission should verify if this indicator gives the appropriate information. PGECON recommended that if this indicator will be kept in the future DCF, then the name of the indicator should be changed into “value of landings per fuel cost”

Response: Ireland proposed and supports the change in name of this indicator.

Issue: Common understanding of the variable “Direct subsidies” (App. VI EU Decision 93/2010).

The group recognized that the DCF definition reported in a footnote of appendix VI requires further clarification of the variable “direct subsidies” in order to have a common understanding and a common approach in reporting data.

On the basis of DCF definitions and OECD classification, the group agreed that the following components should be included in the variable “direct subsidies”:

- refunds of fuel duty
- subsidies for temporary cessation
- socio-economic compensation for fishermen (example: funds given to the company to compensate the crew for the loss of income.)

The group concluded that the following items should be excluded from direct subsidies:

- Fuel tax exemption
- Subsidies for permanent cessation of fishing activities
- Investment subsidies (fleet modernization)

Response: Ireland notes and agrees with the redefined classification of the variable “*Direct subsidies*” and will follow these guidelines.

Issue: Compare price per capacity unit, depreciation rates and other assumptions applied by MS in estimating capital value and capital costs

Participants analyzed the prices per capacity unit estimated in different countries. This exercise showed that there still exist differences in the application of the method. During the meeting several participants discovered some errors in their calculations and received useful information on how to improve the estimations. PGECON concluded that this comparative exercise should be repeated also during the next year meeting.

Response: This exercise is planned to take part at a separate workshop meeting of PGECON in 2013

III.B.4 Actions to avoid shortfalls

The Member State is fully aware of its obligations under the DCF in relation to population coverage and the reporting of precision. As the MS has no current option but to operate a voluntary survey, success is dependent on industry cooperation to achieve the required level of sampling detailed in the National Programme. Mindful of the limitations of a voluntary survey, the following actions have been taken by the MS, to increase the response rates to present and future surveys and to improve the management of the DCF:

- A dedicated professional was assigned in 2009, to data collection for the processing sector (see section IV.B.4);
- Significant progress has been made by the MS to encourage Producer Organisations to engage their membership (i.e. vessel owners and operators) in the DCF process. The MS will continue to build on this relationship;
- The MS will retain conditions relating to EU or National grant-aid which make it mandatory for the provision of economic data under the DCF;
- The MS expects to improve the data provision rate in compliance with the DCF, through the requirements of the national ISO65 standard for wild seafood;
- The MS has made efforts to improve the survey return rate and decrease the time lag between the end of the reference year and the provision of data.

III.C Metier-related variables

North Atlantic (ICES areas V-XIV and NAFO areas) and

North Sea (ICES areas IIIa,IV and VIIId and Eastern Arctic (ICES I and II)

III.C.1 Achievements: Results and deviation from NP proposal

For details of identified métiers, merges and planned sampling trips per métier please see Tables IIIC1 – 3.

A total of 214 discard trips at sea were achieved in 2012. The table below breaks down the percentage of all trips achieved by gear.

Gear	PTM	TBB	GNS	SSC	OTB	DRB	FPO
%trips achieved	97%	57%	100%	75%	118%	129%	95%

The use of sampling frames evolved from the recommendations of the ICES WKPRECISE workshop (September 2009) and developed by the ICES WKMERGE workshop (January 2010). The use of sampling frames was introduced into the DCF in 2010 for sampling taking place from 2011 onwards and so Ireland is reporting it's planned and achieved sampling including sampling frames.

The precision of the numbers at age estimates for the landed proportions were estimated using a bootstrap technique (Efron and Tibshirani, 1993). For each métier a minimum number of 10 length-frequency samples, each comprising 25 or more fish is required, along with ageing information.

During the calculation, 1000 bootstrap iterations were carried out, re-sampling with replacement the length-frequency and aged samples. The number of fish in each age class was estimated by multiplying the age-length key from the re-sampled aged information by the re-sampled length distribution. From these 1000 estimates of number at age a CV at age was calculated. The final CV for the métier as presented in table III_C_5 is a weighted mean of the CV at age.

Precision estimates for the age distribution of discards were obtained by bootstrapping the length samples at the haul level and age data at the level of individual fish. The age distribution was expressed in proportions-at-age and for each age class the CV was estimated from the standard deviation of the bootstrapped estimates. The mean CV was weighted by numbers-at-age.

III.C.2 Data quality: Results and deviation from NP proposal

Table III.C.3 outlines planned versus achieved sampling trips by métier. In general it can be observed that in several cases effort was redistributed from planned concurrent at the market to either stock specific at the market sampling or to concurrent at sea sampling. This is a reflection of the increased ability of Marine Institute staff and contractors to get to sea, and does not in any way adversely affect the quality of the data. In many cases it was not possible to complete concurrent sampling and so an increased effort was focused on the stock specific sampling to ensure sufficient data for assessments.

Changes to Métiers

The following changes have been made to the métiers stated within the 2012 national program due to the implementation of gear technology regulations:

- o Vessels operating within the Irish Sea Nephrops fishery are now required to install a separator panel, therefore the métier OTB_CRU_70-99_0_0 has been replaced by OTB_CRU_70-99_1_0. Métier OTB_CRU_70-99_2_0 with the use of a separator grid is still permitted.
- o Vessels using bottom otter trawl gears within the west of Scotland (VIa) are now required to use a 120mm square mesh panel within the codend. Therefore in fishing ground VI this results in the splitting of métier OTB_100-119_0_0 into OTB_100-119_0_0 for those trips occurring in VIb and OTB_100-119_1_120 for those occurring in VIa.
- o From August 1st 2012 within VIIIf and VIIg bottom otter trawls using 70-99mm mesh codends were required to fit a 110mm square mesh panel this therefore splits the métier OTB_70-99_0_0 into OTB_70-99_0_0 and OTB_70-99_1_110. Within larger mesh codends 100-119mm meshes, a 120mm square mesh panel was required, splitting métier OTB_100-119_0_0 into OTB_100-119_0_0 and OTB_100-119_1_120.

Metier LVL6	Replacement LVL6	Métier	Space strata	Time strata	Comments

Metier LVL6	Replacement LVL6	Métier	Space strata	Time strata	Comments
OTB_CRU_70-99_0_0	OTB_CRU_70-99_1_0		VIIa	Yearly	Inclusion of separator panel
	OTB_CRU_70-99_2_0		VIIa	Yearly	Inclusion of separator grid
OTB_DEF_70-99_0_0	OTB_DEF_70-99_0_0		VII fgh	Yearly	Prior to 1/8/2012 in VII f and VII g, else VIII h
	OTB_DEF_70-99_1_110		VII fgh	Yearly	Post 1/8/2012 in VII f and VII g
OTB_DEF_100-119_0_0	OTB_DEF_100-119_0_0		VII fgh	Yearly	Prior to 1/8/2012 in VII f and VII g, else VIII h
	OTB_DEF_100-119_1_120		VII fgh	Yearly	Post 1/8/2012 in VII f and VII g
OTB_DEF_100-119_0_0	OTB_DEF_100-119_0_0		VI	Yearly	Fishing activity in VI b
	OTB_DEF_100-119_1_120		VI	Yearly	Fishing activity in VI a

Further to this the métier MIS_MIS_0_0 became necessary within a number of fishing grounds due to the inability to correctly identify gear classifications reported within the logbooks. This stems from the introduction of electronic logbooks and the presence of high level gear code options having been made available.

Additional Sampling frames have also been developed to account for the MIS_MIS_0_0 métiers as Irish sampling frames are formulated around gear classifications of towed demersal, towed benthic, towed pelagic and static which could not be determined from high level gear code usage.

Below are more specific explanations for a number of métiers as seen in Table III.C.3

North East Atlantic and Western Channel. ICES Areas V, VI, VII (excluding d), VII, IX, X, XII, XIV

DRB_MOL_0_0_0 in VIIa: Targets scallops and razor clams. All market sampling was conducted in this metier and a total of 14 of the planned 17 at sea trips were achieved. Within this metier the main focus in

2012, was on the scallop fisheries. In 2012 there was an increase in the number of at sea trips achieved, 3 out of a planned 4 for this fishery. The shortfall was due to the unavailability of contractor staff. No sampling of razor clams was undertaken. New management arrangements for this stock are being developed which will determine future data requirements and sampling needs. No length or age assessments are being undertaken at this time

DRB_MOL_0_0_0 in VII fgh. 5 out of 4 concurrent at sea trips on scallops were achieved and 9 of a planned 6 stock specific trips, were also achieved.

FPO_CRU_0_0_0:, targeting brown crab and lobster. All land based sampling trips planned were achieved for this metier. A total of 77 of the planned 79 trips were achieved. 49 of 52 planned trips at sea were completed and 21 trips on shore were completed where 20 were planned. Hundreds of self-sampling 'trips' were achieved in this metier through the Sentinel Vessel Programme which reports the same type of data as concurrent at sea sampling by observers.

FPO_MOL_0_0_0 targeting whelk: 12 of the 12 (100%) at sea concurrent sampling trips were achieved. This sampling was also augmented by a self sampling scheme which is funded at national expense. Length distributions and catch rates vary considerably on whelk trips and as there is no discard mortality issue associated with this metier, the MI is concentrating it's efforts on a more robust shore based sampling scheme, for length and age, as many more boats can be sampled ashore for landings by port and sea area.

GNS_DEF >= 220_0_0 in VIIa This métier represents the inshore Spring cod fishery in Q1. No trips were completed on this métier as the fishery takes place on the VIIa/VIIg line, and post trip analysis led to the intended VIIa trips being allocated to the VII fgh métier. This is evident as, 7 out of a planned 2 at sea trips and 5 of a planned 3 stock specific sampling trips were completed on the GNS_DEF >= 220_0_0 in VII fgh métier.

GNS_DEF >= 220_0_0 in VII bcjk: 5 out of 8 at sea trips were achieved for this métier. A target of 12 stock specific sampling trips were planned, however none achieved. 50% of the concurrent sampling events were reached. Landings from this métier have been steadily declining over the past three years, and landings are very fragmented. The main vessel in this métier lands into a remote location in which we have no presence at the moment, making access to samples difficult. Attempts will be made to increase stock specific sampling on this métier in the future.

OTB_CRU_70 – 99_0_0: *Nephrops* fishery in VIIa. 14 of the planned 10 at sea trips were achieved along with all concurrent at the market sampling trips. Additional stock specific sampling events were completed; where 22 sampling trips were achieved as opposed to the 8 planned. This was possible, due to having a permanent presence in the relevant ports in this area, allowing regular sampling events, at no additional cost to the DCF. Vessels are randomly selected within this sampling frame and as such, it is not possible to always predict the specific gear type, (OTB with a grid or OTB with a separator panel) which will be sampled, hence the slight shift in sampling versus planned targets.

OTB_CRU_70 – 99_0_0: *Nephrops* in VIIbcjk. 8 of the planned 13 at sea sampling trips were completed in 2012. 1 of the 2 concurrent trips could be completed. However additional stock specific sampling was carried out to compensate for the shortfall in at sea sampling trips and a total of 33 sampling events were completed instead to the 4 planned. Part of this métier is the porcupine fishery for *nephrops* and while targets were set with a full fishery in mind, the fishery was closed from May to August, also trips are of a long duration, sometimes fishing in multiple areas.

The other element of this métier is the back of Aran Islands *nephrops* fishery, which is opportunistic and sporadic in nature, and can hamper getting staff to sea on vessels at short notice. An increasing proportion of the landings are landed frozen and graded at sea making access to samples problematic.

OTB_CRU_70 – 99_0_0 *Nephrops* in VIIfgh: This métier covers the “Smalls” and other *Nephrops* grounds in VIIfgh. A total of 10 of the planned 13 at sea sampling trips were completed. All concurrent trips were achieved and a total of 22 stock specific sampling events of the 4 planned were completed to compensate for the shortfall in at sea trips.

OTB_DEF fisheries often the vessels will fish across fishing grounds and an *a priori* analysis of the data means that additional sampling may have occurred in some areas.

OTB_DEF_100-119_0_0 in VI: 16 at sea trips were achieved of the 14 trips planned on the métier. 1 concurrent at the market sampling trip was completed out of the 6 planned. The shortfall on concurrent sampling targets was due to the market procedures adopted in this area, where landings are pre – sold and shipped prior to coming ashore for the auction, limiting concurrent sampling opportunities. In order to compensate for this shortfall additional stock specific sampling events were undertaken, resulting in 21 trips of a planned 4 being completed.

OTB_DEF_70-99_0_0 in VIIa: 7 of a planned 4 sampling at sea trips were achieved for this métier. None of the 2 concurrent trips were sampled, however additional stock specific trips (11 of the 2 trips planned) were achieved.

OTB_DEF_70-99_0_0 in VIIIfg and VIIbcjk: All targets were reached and surpassed for both métiers.

OTB_DEF_100-119_0_0 in VIIbcjk targeting Hake Monkfish and megrim and OTB_DEF_100-119_0_0 in VIIbcjk targeting whitefish: A total of 16 at sea sampling trips were planned and 22 trips were achieved. 8 concurrent trips ashore were planned but only 5 were completed. In order to supplement the reduced concurrent sampling stock specific targets were exceeded, a total of 65 stock specific market sampling trips out of 8 planned were achieved. This additional sampling was made possible by having a presence in the relevant ports, and as such was cost neutral.

PTM_LPF_100-119_0_0 VIIbcjk: Tuna: 1 sampling at sea trip was planned and 2 trips were achieved on this tuna métier, and 16 concurrent trips ashore were achieved instead of the 2 planned.

PTM_LPF_100-119_0_0 VIIIabde: Tuna: No sampling was completed for this métier in 2012. Notable changes in the fishery over the past two years, includes a geographic shift in effort from the Bay of Biscay to an area southwest of Ireland. No catches by Irish vessels were made in area VIII in 2012 or 2011 and the Irish albacore fishery is now solely limited to the South West of Ireland

PTM_SPF_32-69_0_0 in VI: Mackerel, Two at sea trips were achieved where as only one was planned. The additional trip was included as the fishery spanned two quarters where historically it only took place in one quarter, and 16 out of a planned 15 concurrent trips were achieved.

PTM_SPF_32-69_0_0 in VIIbcjk: Mackerel, The 1 planned at sea sampling mackerel trip was not achieved, but greater efforts will be made to target this in the future. However seven additional concurrent trips were carried out to compensate for this missed at sea trip.

PTM_SPF_32-69_0_0 in VIIIfgh: Mackerel, 1 at sea sampling trip took place, during 2012 the mackerel stock stayed further north and only 5 tonnes were landed from this area, which were not sampled at the market.

PTM_SPF_32-69_0_0 VIIIabde: Mackerel: There were no landings from this métier in 2012, therefore no sampling was possible.

PTM_SPF_32-69_0_0 in VI: Scad: All at sea trips achieved and targets met for land based samples

PTM_SPF_32-69_0_0 in VIIbcjk: Scad: All at sea trips achieved and 8 of 15 concurrent land based sampling trips were achieved. The majority of scad in 2012 was landed by the fleet operating in area VI and the achieved sampling reflects this.

PTM_SPF_32-69_0_0 in VIIfgh: Scad. Two additional at sea trips were achieved from this métier. However no market sampling was completed. Landings from this métier fell by more than half making it difficult to reach the very high targets set out in the National programme.

PTM_SPF_32-69_0_0 IV, VIId VIIbcjk and VIIfgh : No Blue Whiting trips were completed in these areas however 4 trips were completed in area VI where the majority of the fishery took place. Overall for this sampling frame the 4 planned trips were achieved.

PTM_SPF_32-69_0_0 VI: only 1 of the planned 4 herring trips was completed for this métier, and 14/40 stock specific shore based sampling events were achieved. Herring landings in area VI have fallen significantly from the three year average (2008 – 2010) of 11,183t, on which targets were based, to 7,193t in 2012.

PTM_SPF_32-69_0_0 VIIa: An experimental fishery was opened in this area in 2012, with only four vessels allowed to fish for herring. Observers were placed on all four vessels, however only one vessel was successful in catching herring.

The PTM_SPF_32-69_0_0 VIIa, Celtic Sea herring métier was sampled; all at sea sampling trips and 11 out of a planned 22 concurrent sampling trips were completed.

The PTM_SPF_32-69_0_0 VIIfgh, Celtic Sea herring at sea sampling targets were reached, and 39 of the planned 23 concurrent trips ashore were also achieved, reflecting the change in effort away from VIIa and into VIIg.

PTM_SPF_32-69_0_0 VI and PTM_SPF_32-69_0_0 VIIbcjk Sprat: Only 112 tonnes of sprat were landed in to Area VI which made the fishery very difficult to sample. The planned at sea trip in area VIIbcjk was not achieved, however an additional 2 stock specific trips ashore to counteract this.

SSC_DEF_70-99_0_0 VIIa : 1 of the planned 3 at sea trips was completed on this métier, however no concurrent or stock specific sampling could be carried out ashore, as only one vessel operates in this métier and does so sporadically in the Irish sea making sampling very difficult. All efforts will be made to secure sampling trips from this vessel in the future.

SSC_DEF_70-99_0_0 VIIbcjk: 2 of the planned 3 at sea sampling trips were completed. The one concurrent trips was achieved and stock specific sampling trip targets were exceeded, with 4 of the planned 2 trips achieved.

SSC_DEF_70-99_0_0 VIIfgh represents the majority of fishing effort for seiners and as a result additional trips were achieved for this métier for both the at sea sampling and also for the stock specific sampling ashore.

TBB_DEF_70-99_0_0 VIIa: 2 of the planned 6 at sea sampling trips and 2 of the planned 6 concurrent sampling trips were completed, with 2 additional stock specific sampling trip being picked up. This is a difficult métier to sample as it comprises of few vessels. Over 50% of this fleet was decommissioned in 2009. In 201, only 6 vessels reported regular landings from VIIa with 2 accounting for the majority of the landings (68%). The main vessel (accounting for ~40% of the landings) is sampled as much as possible within a year. The next most important vessel with 28% of the landings is not co-operative with sampling programmes. The other vessels in the fishery fish sporadically in VIIa making sampling difficult to plan. In addition landings from the vessels in this métier are often split with a portion of the landings being sold and shipped outside Ireland.

TBB_DEF_70-99_0_0 VIIbcjk: No sampling was possible on the beam trawl métier in VIIbcjk, due to very low effort, only 16t of landings were reported for this area.

TBB_DEF_70-99_0_0: This beam trawl fleet operates in areas VIIfgh. 6 of the 7 at sea trips were completed. All concurrent targets were reached and additional stock specific sampling trips were also carried out to supplement the at sea sampling.

North Sea & Eastern Arctic - ICES Areas I,II

Ireland was unable to get any at sea trips on the PTM_SPF_32-69_0_0 I,II Atlanto Scando Herring. However all land based concurrent samples were achieved. Landings for this fishery are generally into Norway making it very difficult and expensive to get observers aboard.

At sea sampling targets were reached for the PTM_SPF_32-69_0_0 Northern Mackerel métier and an additional concurrent land based trip was also achieved.

Table IIIC5 reports on the sampling intensity for length compositions of species across all métiers combined.

Any sampling in excess of the DCF minimum required levels is the result of several reasons. These are the additional length measurements resulting from the implementation of the concurrent market sampling programme, and also the additional sampling carried out by the at sea observers whilst on discard trips. As has been stated in past reports the main cost associated with the observer at sea programme is getting the observer on board, once on board any sampling in excess of the planned targets is effectively cost neutral.

North East Atlantic and Western Channel. ICES Areas V, VI, VII (excluding d), VII, IX, X, XII, XIV

Thunnus alalunga VIIIadbe: Notable changes in the fishery over the past two years, includes a geographic shift in effort from the Bay of Biscay to an area southwest of Ireland. No catches by Irish vessels were made in area VIII in 2012 or 2011 and the Irish albacore fishery is now solely limited to the South West of Ireland. Sampling targets had been set for area VIIIabde, However Ireland instead sampled the fishing fleet operating in ICES Areas VIIj and VIIk, 1319 tuna were measured from VIIj (8 market sampling events) and 1075 tuna were sampled from VIIk (7 market sampling events). In addition two observer trips at sea were also completed.

Clupea harengus in VI: Landings of herring in ICES Area VI have declined over the past few years, making the targets set in the NP now unrealistic, this will be reviewed in future National Programmes. approx 4,477 herring were sampled from Area VI.

Clupea harengus in VIIbck: Irish vessels have usually concentrated there fishing effort on herring in ICES Area VIIb, however in 2012 landings from VIIb were only 108t. The majority of herring landings came into ICES Area VIIg, accounting for approx 14,600t. No samples were achieved in the market for VIIb, however extensive sampling at sea and ashore was completed for VIIg herring exceeding targets to reflect this change in the fishing activity to VIIg.

Gadus morhua VIIbcjk: Landings of cod by the Irish fishing fleet, come mainly from areas VIIb and VIIj. In 2012 landings from VIIb were only 37t which was landed across 17 different ports. Landings from VIIj were also low at 140t, landed across 22 ports. It's clear from this information that tracking and sampling these landings is very difficult, as they are so small and dispersed. However in spite of this some sampling was achieved and all efforts will be made to build on this sampling in the future.

Homarus gammarus VIIfgh almost 60% the lobster targets were reached. This is due to the fact that there is only a short area of coastline in VIIg and the Irish fleet don't fish lobster in VIIf or VIIh, so there are less vessels to sample from in Areas VIIfgh than the other Areas. However a more concerted effort will be made in 2013 to help ensure these sampling targets are reached.

Merluccius merluccius, *Pollachius virens*, *Raja clavata*, and *Solea solea* in VIIa: In response the Cod Management Plan (EC regulation 1342/2008), the use of species selective gears to minimise the capture of cod by-catches has become mandatory for all Irish vessels targeting *Nephrops* in the Irish sea since March 2012. The use of the grids and separator panels has resulted in a significant decrease in other fish species landings from this fleet operating in area VIIa, and has resulted in lower sampling levels than planned in proportion to this decline in landings across the board in VIIa.

Solea solea in VIIbcjk and VIIfgh are fished by the Irish fishing fleet mostly in ICES areas VIIbc, VIIfg and VIIhk landings increased slightly from lows in 2010, to 37t, 72t and 84t respectively in 2012. These small landings are very difficult to track and sample. All efforts are made to secure these samples and sampling targets for future work programmes may need to be reduced further in line with the low landings.

Micromesistius poutassou VIIbcjk: Landings of blue whiting altered somewhat in 2012, with a larger proportion than usual coming from area VI. To reflect this change away from VIIbcjk sampling targets in VI were exceed, to allow for the under sampling in VIIbcjk.

Pollachius virens VIIbcjk and VIIfgh: unfortunately saithe proved difficult to find in the markets and as a result were under sampled. However a more concerted effort to ensure these targets are reached will be made in 2013.

Raja brachyuran, *Raja clavata*, and *Raja montagui* All Areas: Just over 1,000t of rays were landed by Irish fishing vessels across all areas in 2012. As rays are landed as a mixed species it can be difficult to targets individual species to reach targets. Over all 850 measurements on rays were planned in the NP and 2441 individuals were sampled. The over all sampling reflects what was landed on any given sampling event.

Scomber scombrus VIIbcjk: Mackerel targets for area VIIbcjk were to 76% achieved, 3,799 individuals were sampled. Larger landings for mackerel came from area VI in 2012 and as a result mackerel targets in area VI were exceeded to reflect this landing pattern.

Squalus acanthias VIIbcjk: 7 out of the planned 10 samples of spurdog from area VIIbcjk were achieved in 2012. Targets for spurdog in all other areas were exceeded as this is where *Squalus acanthias* was most common.

Trachurus trachurus VIIbcjk: The vast majority of the horse mackerel landings in 2012 came from Area VI and as a result the targets for area VI were exceeded. Area VIIbcjk accounted for approx 4,700t and even though sampling targets were not reached here, 5257 individuals were measured, which can be considered as extensive sampling for this stock. The target of 7,000 individuals to be measured in VIIbcjk may need to be adjusted to a more realistic number in future NP's.

North Sea & Eastern Arctic - ICES Areas I,II

All sampling targets in this region were reached.

Issues regarding precision estimates.

Precision estimates for both landings and discards are presented in table IIIC5. From this table it can be observed that there are a number of stocks for which no precision estimates are available. The primary reason for lack of precision estimates is that the sample size is too low to estimate precision by bootstrapping. Ireland has used a threshold of at least 10 length-frequency samples containing at least 25 fish (250 fish minimum) each as a minimum level from which to estimate precision by bootstrapping. For various reasons (see section on sampling levels) certain stocks were sampled at levels below this threshold. Stocks which are not aged have precision estimates reported by length. Stocks which have an age reading cycle out of synch with the DCF annual reporting (i.e. they are not aged till later in the year, e.g. mackerel) have precision reported from the 2011 sampling.

In addition to these issues, which are explained by a variety of technicalities, there are a few stocks for which the precision is particularly low (i.e. high CV), these stocks include *Lophius budegassa* in IV & VI and VIIb-k & VIIIabde, and *Lophius piscatorius* in VIIb-k & VIIIabde, and IV & VI and *Solea solea* in VIIhjk; in all of these cases the reason for the low precision is related to the high variability in length at age or length frequencies from the sampled catch. In reality these samples are stratified and raised to the stratum, whereas when the data is reported in the bins required for table IIIC, this stratification is lost and

with the result of higher variability in the single stratum. Ireland will in future change its precision estimation algorithm to reflect the stratification of the sampling used in raising the data, and weight the precision estimate by numbers in the stratum.

III.C.3 Follow – Up of Regional and International recommendations.

LM 19 - DCF Requirements	
RCM NA 2011 recommendation	RCM NA recommends that the collection of otoliths of John Dory is continued but not proceed with age readings until an agreed standardized method is developed.
Follow-up actions needed	All MS having catches of John Dory to collect otoliths
Responsible persons for follow-	All MS
Time frame (Deadline)	None
LM 2011 comments	LM supports this recommendation and regards it relevant for the NS&EA region as well.
Ireland Response	Ireland has continued to collect otoliths for John Dory.

LM 20 - Feedback from assessment working groups	
RCM NA 2011 recommendation	RCM NA recommends MS to describe in detail the methodology on the separation of the catches of the 2 <i>Lophius</i> species. This information should be available to the 2012 benchmark assessment.
Follow-up actions needed	Prepare a document to be forwarded to the WGHMM <i>Lophius</i> stock coordinators.
Responsible persons for follow-	All MS having catches of <i>Lophius</i> in the Atlantic and having not provided this information to the ICES assessment Working group
Time frame (Deadline)	End of 2011
LM 2011 comments	LM recommends that the National Correspondents make this information available well before the Benchmark Workshop
Ireland Response	Ireland's methodology was sent to stock coordinator

LM 22 - Metier variables : Increase sampling in deep-water fisheries	
RCM NA 2011 recommendation	RCM NA recommends MS to check in their NP proposal 2012 that sufficient coverage of deep-water fisheries on-board sampling is planned, in order to meet the EWG needs.
Follow-up actions needed	MS to check and consider increasing the sampling coverage of deep-water fisheries in their amendment of 2012 NP proposal.
Responsible persons for follow-	MS
Time frame (Deadline)	October 2011
LM 2011 comments	LM supports this recommendation.
Ireland Response	Ireland does not have an existing commercial deep water fishery

LM 23 - Metier variables : Metier descriptions	
RCM NA 2011 Recommendation	MS to update metier descriptions already compiled by RCM NA 2010 and using the standard template complete descriptions for any new regionally ranked metiers identified. Updated and new files to be uploaded by Fishing Ground co-ordinators.
Follow-up actions needed	MS to complete metier descriptions
Responsible persons for follow-	All MS
Time frame (Deadline)	RCM NA 2012
LM 2011 comments	LM supports this recommendation and notes that it applies to all regions.
Ireland Response	Ireland did update its métier descriptions, using the standard templates and these were submitted

LM 24 - Metier and stock variables : Concurrent sampling	
RCM NA 2011 Recommendation	MS to fill in template on concurrent sampling and provide it to the chair of RCM NA for compilation and sending to the chair of STECF EWG 11-19 in advance of the December meeting
Follow-up actions needed	MS to fill the template Chair of RCM NA to compile all questionnaires and sent them to the chair of STECF EWG 11-19

Responsible persons for follow-	All MS, chair of RCM NA
Time frame (Deadline)	November 31 2011
LM 2011 comments	LM supports this recommendation and notes that the deadline for submission of questionnaires should be 15 November 2011 in order to allow compilation of information before STECF EWG 11-19.
Ireland response	Template filled and submitted to the Chair of the RCM NA

LM 25 - Metier variables : Merging metier	
RCM NA 2011 Recommendation	RCM NA recommends RCM participants to contact relevant staff within their institute to attend the ICES WKPICS1 meeting on practical implementation of statistical sound catch sampling
Follow-up actions needed	Identify experts for attending WKPICS1
Responsible persons for follow-	RCM NA participants
Time frame (Deadline)	November 2011
Ireland response	Ireland had initially planned to attend this meeting, unfortunately due to other work commitments could only attend by correspondence. However Ireland did prepare and submit a document on Irish sampling programmes as requested prior to the meeting

LM 27 - Métier related variables: Routines for establishing bilateral agreements	
RCM NA 2011 Recommendation	• MS should make sure that their landings abroad are included in the Regional Database upload allowing the RCM to analyse the possible needs for bilateral agreements. • The RCMs should perform an annual analysis on landings in foreign countries and conclude where bilateral agreements need to be made. MS should set up agreements, fixing the details of sampling, compilation and submission of data in each case when it is indicated by the RCM that a bilateral agreement is needed. Standard output algorithms to enable analysis of compiled data should be included in the RDB.
Follow-up actions	MS to make sure landings abroad data are included into the RDB
Responsible persons for follow-	MS

Time frame (Deadline)	Annually. Deadline 1 st of July 2012.
LM 2011 comments	See RCM Baltic
Ireland Response	Ireland does review sampling regularly and has established a series of bilateral agreements with relevant countries.

III.C.4 Actions to avoid shortfalls

At sea sampling

Ireland was successful in recruiting new contractors to implement the at sea sampling programme in 2012. This has led to a significant increase in the achievement of targets. On-going consultation with the fishing industry to improve relations will also continue to assist in getting better observer coverage, but this is a continuing challenge.

A full root and branch review of sampling took place in 2010 with a view to facilitating a more efficient data collection strategy and resulting in higher quality data collection in the Marine Institute. Quarterly sampling reviews are now routine and help highlight potential under sampling and immediate actions are taken as necessary to correct this.

For both FPO_CRU_0_0 in VII and DRB_MOL_0_0_0 in VIIa additional contractors hired are already ensuring that these metiers are sampled in line with planned targets. Also one intern has been taken on and he will focus on both these metiers in order to reach planned targets for, at sea discard sampling and also for landings ashore.

With regards to Nephrops: OTB_CRU_>=70_0_0 (7cjk): porcupine fishery sampling issues need to be resolved as current sampling intensity is insufficient to get precise and accurate length structure data of the catches. In 2011 data on the grade composition of the landings have been provided for some Irish vessels and this has been used to reconstruct the size distribution of the landings for around 25% of the total landings. WGCSE 2011 concluded that the grade composition of the landings can be used to accurately reconstruct size distributions of the landings provided sampling to assess the parameters of each market size grade is carried out in

parallel. Ireland focused on obtaining this data in 2012 through dialogue with the industry, to encourage the industry to provide a break down of grades landed in the future. This was actioned also through the completion of an Industry – Science Partnership survey in 2012 which provided extensive data on these size grades from the porcupine fishery. It is expected that this additional grade data will address a key data deficiency for this stock.

III.D Recreational fisheries

North Atlantic (ICES areas V-XIV and NAFO areas)

III.D.1 Achievements: Results and deviation from NP proposal

Recreational fisheries in Ireland occur in freshwater and at sea.. In the marine environment shore based and sea-based angling targets a wide range of species including shark. Freshwater recreational fishing includes salmon. Salmon and Eel are targeted in freshwater and in estuarine waters.

Eel

Ireland does not have a commercial fishery for Eel. Eel is now protected in Ireland by legislation. There are the two byelaws, one prohibiting the issuing of eel fishing licences and the other prohibiting the possession and sale of Irish caught eel: <http://www.dcenr.gov.ie/Natural/Inland+Fisheries/Legislation/Bye+Laws/Bye-Laws+2009.htm>

- Bye-Law No 858, 2009 prohibits the issue of eel fishing licences by the regional fisheries boards in any Fishery District.
- Bye-law No C.S. 303, 2009 prohibits fishing for eel, or possessing or selling eel caught in a Fishery District in the State until June 2012.

Recreational eel fishing is now only carried out by a minority of rod anglers on a catch and release basis. Length and age composition of eels will not be sampled as there is no legitimate catch, and as a result Ireland has a derogation to sample Eel, which is supported by the RCM North Atlantic.

RCM NA 2012 Comment: *RCM NA supports the request under the assumption that the laws are respected.*

Salmon

There are approximately 140 salmon rivers in Ireland. All recreational fisheries take place in freshwater. The recreational catch in 2012 was 22,285 (60 t). A further 11,891 salmon were released alive by anglers.

For the 2012 season, the scientific advice indicated that:

- ❖ There were 57 stocks which were forecast to have an identifiable surplus over the Conservation Limit and where a harvest fishery can proceed in 2012.
- ❖ In addition, there were 16 Multi-Sea Winter stocks or “spring salmon” stocks assessed separately. Of these, 11 have surplus over the MSW Conservation Limit and therefore a harvest of spring fish was possible.
- ❖ There were 86 stocks which did not have an identifiable surplus over the Conservation Limit. In this instance, there were no harvest options available which would allow a 75% chance of meeting the Conservation Limit would be met therefore no harvest fisheries could take place in these rivers.
- ❖ There were also three Multi-Sea Winter or “spring salmon” stocks failing to meet Conservation Limits.

Within the 86 stocks failing to meet Conservation Limits, there were 59 small river stocks where the most recent average rod catch has been less than 10 salmon annually. The combined rod catch from these rivers is less than 0.5% of the current estimated national rod catch. Although these are insignificant fisheries, their stocks are important as spawning populations in their own right which must be maintained for biodiversity as required under the EU Habitats Directive. The scientific advice was that no harvest fisheries should take place on these stocks until such time as additional information becomes available to assess stock status relative to their Conservation Limits

Cod

A 10 year time series of catch and effort of cod in the sea angling sector in the Irish and Celtic Seas has been compiled.

A register of sea angling charter vessels was also been maintained during 2012.

Sea Bass

The steep decline in bass stocks in Ireland in the mid-1970s led to severe restrictions on the level of bass exploitation which included the cessation of the commercial fishery in 1990 through the Bass (Conservation of Stocks) Order, 1990. Since then bass have been regarded solely as an angling species and are restrictively managed. Bass is the only marine species in Ireland to be managed for angling. Apart from the closure of the commercial fishery, legislation also prohibits the taking of bass using nets and Irish fishing boats must not have bass on board or engage in transshipment of bass. The recreational angling fishery has also been heavily regulated - a bag limit of 2 bass per 24 hr day applies in addition to a minimum size limit of 40cm. The angling fishery is closed from 15th May to 15th June to protect spawning fish. It is also prohibited to sell or offer for sale any bass (other than bass which has been imported into the State).

The Marine Institute collaborated with Inland Fisheries Ireland (IFI) to complete a pilot survey of sea bass in Ireland in 2011. Data from the angler intercept survey, carried out during the recreational sea bass pilot survey shows high variability in the data on angling days per annum per angler, catch per annum per angler, and landings per annum per angler. Extrapolations are based on previous work in the 1980s and the use of expert opinion that 40% of sea anglers are bass anglers. Total landings are estimated at between 30-44t per annum.

Despite not knowing the stock biomass, an annual landing of 30-40 tonnes (which is possibly an inflated figure) represents a very low exploitation level, especially if we consider that the south coast stock may be a northern extension of the Celtic sea channel stock. Ireland considers that sea bass exploitation levels can be agreed to be at a minimum exploitation level below which no sampling is required in the future. On foot of this pilot study, Ireland now has a derogation to sample Sea bass, which is supported by the RCM North Atlantic.

RCM NA 2012 Comment: *RCM NA supports the request given the outcomes of the study. Ireland should specify the request officially in the National Program 2013.*

Sharks

Under the DCF, the term sharks covers all Chondrichthyan fishes, thus sharks, rays, dogfish and Chimaeras. Recreational fisheries for rays are small and dispersed. There is no legal or voluntary declaration of catch. Length and age composition of the recreational catch of rays will not be sampled.

Recreational fisheries for sharks, including dogfish, is on a catch and release basis. Claims for specimen fish of tope and blue shark are now taken as length only, so as to ensure that the fish

can be returned alive (<http://www.irish-trophy-fish.com/notices/conservation.htm>). Most commercial angling operators now take part in the IFI Marine Sport Fish Tagging Programme, where live sharks, skates and rays are tagged with the appropriate tag and released (<http://www.fisheriesireland.ie/Tagging/marine-sport-fish-tagging-programme.html>). Records are kept by Inland Fisheries Ireland.

Length and age composition of the recreational catch of sharks are not sampled and Ireland now has a derogation for recreational shark sampling, which is supported by the RCM North Atlantic.

RCM NA 2012 Comment: *Given the information provided by the tagging study as well as the assumption that recreational fishery takes place on a catch and release basis, RCM NA supports this request*

III.D.2 Data quality: Results and deviation from NP proposal

Salmon

Recreational fisheries are required to obtain a state license and report their catches as soon as they are landed in a mandatory logbook. They are also required to fix a self locking tag on the carcass of the fish and record the unique tag number into the logbook. Other data required to be recorded in the logbook are Date of capture, River/lake, Beat, County, Species (salmon or sea trout), Weight (lbs or Kgs), lure (fly, spinner, worm, prawn/shrimp, other and total days fished. The information must be returned to the fisheries authority on the 19th of October of the year for which the licence is valid. Returns of recreational logbooks is over 60% while returns for commercial logbooks is 100%. Data are centralised by the Inland Fisheries Ireland and published annually.

Specific biological sampling of the salmon fisheries (commercial and recreational) is carried out in selected rivers where artificially reared salmon are tagged and released either in scientific “ranching” programmes or to mitigate against loss of natural production by hydro-damming, or other man made problems. A National Microtagging and Tag Recovery programme was established in 1980 by the fisheries authorities. Over 190,000 salmon smolts were tagged and released in 2011 for return in 2012. Approximately 2,000 were recovered subsequently during sampling of commercial/recreational fisheries and brood stocks and measured for forklength and weighed

Approximately 2,000 were recovered subsequently during sampling of commercial/recreational fisheries and brood stocks and measured for forklength and weighed. Random samples of wild fish were also taken for age, length and weight comparisons. The data from the National Coded

Wire Tagging and Tag Recovery programme provides information on marine survival, exploitation rates, and survival to spawn for national and international stock assessments.

Salmon stock assessment is reported on the basis of numbers rather than biomass. There are only two principal sea-age classes which are represented in the fisheries in Ireland i.e 1 Sea Winter and multi sea Winter (MSW) which are predominantly 2 SW fish. Recent catch information from angling logbooks suggests a MSW proportion of 12%, 16%, 9% and 11% (provisionally) from 2008 to 2012 (average 12%). Stock assessment is not dependant on sampling for length and age and results from these analyses are mainly for monitoring the biological characteristics of the stocks. On the reported recreational catch statistics estimated individual weights were provided for approximately 99% of the reported catch. In the sampling of salmon in the National Coded Wire Tagging and Tag Recovery Programme, approximately 2,000 adult salmon were measured and weighed.

Data quality is assessed initially by district salmon fishing inspectors of Inland Fisheries Ireland. Subsequent data quality checking and analyses are carried out by the Standing Scientific Committee for Salmon, a multi-agency scientific advisory group established under the Fisheries Act 2010. The catch data are modified to account for non-return of logbooks, anomalous returns in logbook data and unreported catches. Long term trends are examined and an assessment of stock status relative the attainment of Conservation Limits (defined as Maximum Sustainable Yield in numbers of salmon) is carried out by the SSC. Advice on catch levels and river TACs is provided on an individual river basis.

Length composition of the catch originates from voluntary data provided by recreational fishermen in the logbook and from private fishery owners who monitor the number and size of fish captured in their rivers, as well as sampling carried out by staff of the Central Fisheries Board. There are no specific sampling or precision targets associated with this process.

Up to 2010, the Wild Salmon and Sea Trout Tagging Scheme was administered by the Central and the seven Regional Fisheries Boards (Eastern, Southern, South Western, Shannon, Western, North Western and Northern Regional Fisheries Boards) on behalf of their parent Department, the Department of Communications, Energy and Natural Resources (DCENR). In 2010, a new institution was created which amalgamated the Regional and Central Fisheries Boards into one organisation i.e. Inland Fisheries Ireland (IFI). Cross boarder collaboration with the Loughs

Agency (an inter-government agency between Ireland and the UK) occurs in the case of the river Foyle, while inter-governmental collaboration also exists between the UK and Ireland in the case of the River Erne. Data collection at a regional level is co-ordinated by the IFI while, data analyses, stock assessment and research co-ordinated by the IFI and the Marine Institute.

Cod

Sea angling returns from vessels participating in the Central Fisheries Board voluntary logbook programme and the register of sea angling vessels from 2000-2012 provide data on

- Number of cod captured per boat per day
- Number of cod captured per angler per day
- Total number of angling days and rod days covered by the sample
- Estimates of weight of fish landed by vessel day
- Raising factors (to fleet) for the sampled vessels for Irish sea and Celtic Seas
- Estimates of the total number of cod landed by the vessel based sea angling sector
- Weight of cod landed by the vessel based sea angling sector

III.D.3 Follow-up of Regional and international recommendations

LM 30 - Recreational fisheries: Best practice.	
RCM NA 2011 Recommendation	RCM NA recommends MS to include recommendations and outcomes of PGRFS in the adjustment of their 2012 NP, if
Follow-up actions needed	Revising MS NP proposals 2012.
Responsible persons for follow-	All MS.
Time frame (Deadline)	October 2011
LM 2011 comments	LM supports this recommendation
Ireland Response	All recommendations have been taken into account when updating the 2012 programme.

III.D.4 Actions to avoid shortfalls

There were no shortfalls; therefore no remedial actions were required.

III.E Stock-related variables

North Atlantic (ICES areas V-XIV and NAFO areas)

The vast majority of the Irish fishery takes place in the North Atlantic Region. Three widely distributed stocks also extend into the North Sea and Eastern Arctic Regions (*Micromesistius poutassou* I-IX, XII, XIV; *Scomber scombrus* II, IIIa, IV, V, VI, VII, VIII, IX and *Trachurus trachurus* IIa, IVa, Vb, VIa, VIIa-c, e-k, VIIIabde) . However because the vast majority of the catches of these stocks take place within the North Atlantic Region, therefore no separate sections are presented for the North Sea and Eastern Arctic Regions as the actions outlined below cover all regions.

The planned stocks requiring sampling are highlighted in Table III E1 and III E 2

III.E.1 Achievements: Results and deviation from NP proposal

The achieved sample numbers and precision levels are listed in table III E 3.

The field “Fishing ground” in this table is problematic because the targets are not set by fishing grounds but by stock area according to Annex VII of 2010/93/EU. The stock areas generally do not correspond to the fishing grounds and it would not be appropriate to split each stock by fishing ground because that would make it impossible to evaluate the precision targets. However, because this field appears to be mandatory, we have filled in the main fishing ground for each stock.

The field “Achieved number of individuals” was interpreted as the number of individuals for which age, weight, sex or maturity sampling was performed, not the number of individuals measured.

General deviations from sampling targets

In all cases where more than 150% of the target sample numbers were collected, this was done at the expense of the member state. Most sampling targets are set on a length-stratified basis; therefore the achieved sampling numbers may be different than the planned number. In a number of cases this has led to sample numbers that were significantly lower than planned. However it should be noted that the number of individuals that was sampled is largely irrelevant for the precision estimate as this is mainly determined by the number of independent sampling events (see e.g. WGPRESISE 2009).

Specific derivations from sampling targets

Sub-Divisions VIaN and VIaS were not distinguished for landings samples for *Clupea harengus*, hence no estimates are given for VIaN

Otoliths were collected for *Pollachius virens*, *Psetta maxima*, *Scomber scombrus*, *Scophthalmus rhombus* and *Trachurus trachurus* but they have not been read at the time of writing. *Merluccius merluccius* are not aged because of continued uncertainty about the accuracy of current ageing methods. *Zeus faber* are not aged. The biological parameters of these species are expressed by length (1cm size classes); length-at-age obviously cannot be expressed by length so the number of otoliths collected is given here, with no precision estimate.

The availability of herring samples in VIIa and VIIbcjk was very low in 2012 resulting in lower sample numbers than expected. This reflected the shift in fishing activity of the Irish fleet towards ICES Area VIIg.

The sampling of *Lophius budegassa* in VI was very poor, which is reflected in the achieved sample numbers. Samples from VII were also difficult to obtain. *Lophius* sampling is conducted in the ports but we were hoping to augment market sampling with additional samples from the IBTS Q4ground fish survey, unfortunately *Lophius* specimens were not present on the survey in sufficient numbers to reach biological sampling targets.

Landings of *Merlangius merlangus* from VIIa are virtually non-existent since the collapse of the stock and introduction of technical measures (grids and panels) that reduce the by-catch of cod (and other gadoids) in the *Nephrops* fishery in response to the Management Plan (EC regulation 1342/2008). The use of species selective gears to minimise the capture of cod by-catches has become mandatory for all Irish vessels targeting *Nephrops* in the Irish sea since March 2012. The use of the grids and separator panels has resulted in a significant decrease in other fish species landings from this fleet operating in area VIIa, and has resulted in lower sampling levels than planned in proportion to this decline in landings across the board in VIIa.

Landings of *Micromesistius poutassou* were mostly from Area 6 and these were sampled as often as possible. The numbers collected still adequately support the *Micromesistius poutassou* stock assessment.

Pollachius virens samples were collected on the Irish Groundfish Survey but catches from the 2012 survey were lower than expected from previous surveys.

Sampling for maturity and sex of *Gadus morhua*, *Melanogrammus aeglefinus* and *Merlangius merlangus* in VIIa was poor due to reduced availability of samples since the introduction of technical measures to reduce the by-catch of cod (and other gadoids) in the *Nephrops* fishery.

Similarly, no *Solea solea* samples were available from VIIa for maturity and sex ratio sampling.

Sampling for maturity and sex ratios of *Melanogrammus aeglefinus* and *Merlangius merlangus* in VIa was poor due to lack of availability of samples during the spawning season.

No length-weight data were collected for *Cancer pagurus* because all samples were collected at sea. This deficiency has been corrected by arranging sampling in a number of processing plants in 2013.

III.E.2 Data quality: Results and deviation from NP proposal

Precision estimates

The precision levels were estimated using COST tools (analytical approach). For species that cannot be aged or for which age data is not available at the time of writing, the parameters were expressed on a length-basis. For most species the data were binned in 10mm length classes except for *Nephrops* (1mm) crab and lobster (5mm) and spurdog (10cm). For crustaceans, maturity was only estimated for females.

Shortfalls

As pointed out in the National Programme 2009-2010, annex 3 and 4. Many of the precision targets are not achievable. It is simply not cost-effective to obtain the excessively high number of samples (PSUs) required to achieve all the precision targets. Length-at-age parameters can generally be estimated with good precision for reasonable numbers of samples and the targets are generally met. Weight-at-age parameters are generally less precise and larger numbers of samples are needed to achieve the targets. Sex ratio and maturity parameters are generally impossible to estimate with the required precision as can be seen from table III.E.3.

II.E.3 Follow-up of Regional and international recommendations

LM 33 - Stock variables : Quality issues	
RCM NA 2011 Recommendation	RCM NA recommends MS to complete properly the tables III.E.1 and III.E.2
Follow-up actions needed	MS to review their tables of the NP Proposal 2011-2013
Responsible persons for	MS
Time frame	October 2011
LM 2011 comments	LM supports this recommendation.
Ireland Responses	Ireland ensures that both tables are correctly completed
LM 35 - Stock variables : Sampling intensities	
RCM NA 2011 Recommendation	RCM NA recommends an inter sessional study on combining the biological data in FishFrame, and estimating the biological parameters at the stock level. Blue whiting (<i>Micromesistius poutassou</i>) was listed as a candidate due to the number of MS having sampling obligations.
Follow-up actions needed	MS having blue whiting samples
Responsible persons for	Coordinator to be found by chair of RCM NA
Time frame	May 2012
Ireland Response	Ireland uploaded data according to the data call. However this study did not take place due to incomplete data from other nations.

LM 38 - Stock variables : Regional collection	
RCM NA 2011 Recommendation	RCM NA recommends all MS to have a careful look at the tables in annex VII, in order to identify stocks for which a bilateral agreement would improve the
Follow-up actions needed	MS to identify bilateral agreement, contact NC and propose
Responsible persons for follow-up actions	All MS
Time frame (Deadline)	October 2011

Ireland Response	Ireland has identified these stocks and several important bilateral agreements are already in place.
-------------------------	--

LM 50 - Stock Variables: Studies on shared international age–length keys	
RCM NS & EA 2011 Recommendation	Sampling for ages and the construction of ALK should follow sound statistical sampling practices set out according to WKPRECISE. Greater emphasis should be placed on the collection of <i>age</i> samples for species subject to age based stock assessments as the collection of length frequency data not linked to age samples may be of limited benefit in improving bias and precision estimates for numbers at age. Databases structures should allow storage of linked age and length samples.
Follow-up actions needed	MS to review their sampling for ages and construction of ALKs (if used). Commission to frame collection regulations so as to encourage best statistical practice.
Responsible persons for follow-up actions	MS, Commission
Time frame (Deadline)	To be considered for the new DCF
LM 2011 comments	LM notes that this issue will be discussed further in the light of a revised DCF.
Ireland Response	Ireland carries out annual sampling reviews ensuring that all data including ALK's are fit for purpose. Ireland also notes that internationally shared ALK's are likely to lead to increased bias.

III.E.4 Actions to avoid shortfalls

The lack of availability of samples for certain stocks was related to low landings of these stocks, there is little to be gained from increasing the sampling effort if the landings are minimal.

Ireland intends to follow recommendations from WKACCU (2008), WKPRECICE (2009), WKMERGE (2010), WKPICS (2011) and WKPICS2 (2012). These recommendations might result in deviations from the planned sample numbers.

Ireland remains focused on providing high-quality data to stock assessment working groups. Therefore the sampling effort is concentrated on providing these data with the highest feasible level of accuracy and precision. Data collection of parameters that are not directly relevant will have a lower priority.

III.F Transversal variables

Baltic Sea (ICES areas III b-d), North Sea (ICES areas IIIa, IV and VIId) and Eastern Arctic (ICES areas I and II), and North Atlantic (ICES areas V-XIV and NAFO areas)

III.F.1 Capacity

III.F.1.1 Achievements: Results and deviation from NP proposal

Fleet capacity data has been updated and maintained during 2012 in the national register of sea fishing vessels, and includes vessels operating in both the Atlantic and North Sea and Eastern Arctic.

III.F.1.2 Data quality: Results and deviation from NP proposal

Data from the national register can be used to report exhaustively on

- Fleet capacity (kws, GTs), length distribution, age of vessels by fleet segment

III.F.1.3 Actions to avoid shortfalls

There were no shortfalls in 2012.

III.F.2 Effort

III.F.2.1 Achievements: Results and deviation from NP proposal

Sampling Strategy

In 2012 the sampling strategy laid down in Irelands DCF proposal targeted a specific number of vessels within each of the sub-métiers of the pot (FPO) and dredge (DRB) métiers in a self-sampling programme or sentinel vessel programme as outlined in the following table.

Metier	Targeted Fishery	Vessels	Coverage
VII Crustaceans Potters	Mixed Crab/Lobsters	15	c. 7%
	Lobster	16	c. 6%
	Shrimps	13	c. 6%
	Spider Crabs	3	c. 15%
SUB-TOTAL		47	
VI Crustaceans Potters	Crabs	5	c. 15%
	Mixed Crab/Lobsters	10	c. 8%
	Shrimps	4	c. 40%
SUB-TOTAL		19	
VIIa Mollusc Potters	Whelks	8	c. 20%
VIIa Mollusc Dredgers	Razor Clams	6	c. 30%
	Cockles	6	c. 15%
	Surf clams	3	c. 60%
	Scallops	3	c. 65%
SUB-TOTAL		18	
VII f-k Gillnetters	Demersal spp.	8	c. 25%
TOTAL		100	c. 11%

Results

Vessel <12m LOA:

Effort of vessels under 12m LOA (Metier FPO, DRB and GNS) was sampled by the sentinel vessel programme. The Sentinel Vessel Programme was reviewed and revised in 2011 to improve the quality and quantity of data collected. A new operational logbook was issued to 100 vessels from multiple sectors of the inshore fleet, representing 6% of the total national active fleet. A total of 88 subsequently participated successfully. Notwithstanding gaps in data due to bad weather, sickness and effort management, the quality and quantity of data returns represents an increase from that reported in previous reference years.

Effort indicators include:

- Number of nominal effort units (pot hauls, dredge hours, net length) per vessel per year
- Number of standardized effort units (pot hauls, dredge hours, net length) per vessel per year
- Number of days at sea per vessel per year

In addition effort census in a number of DRB sub-metier for vessels <12m LOA was achieved

- A specifically designed logbook monitoring programme was completed for the cockle sub-metier resulting in a census of effort (dredge hours)
- Logbook census of effort and landings was completed for the surf clam sub-metier (dredge hours)

Vessels 10-12m LOA

Logbook data provided a census of effort for all active vessels. The effort indicator is

- Days at sea per vessel per year
- Kw days at sea

The proportion of the fleet between 10-12m LOA that was active in 2012 was estimated by comparing the number of such vessels in the national register and the number in the national logbook database. This proportion was used as a raising factor for the sentinel vessel programme data for vessels 10-12m in LOA. The proportion of the fleet <10m active was estimated from the number of vessels selling fish, as indicated in the buyers and sellers data, compared to the number on the national register.

Deviations

Although vessels can be identified as belonging to a particular sub-metier in a given year and a given number of vessels in each sub-metier can therefore be sampled vessels may switch métier unpredictably depending on market conditions.

III.F.2.2 Data quality: Results and deviation from NP proposal

Results

A census of effort for all vessels over 10m has been obtained. Various effort indicators can be developed from these data

In the case of vessels <10m LOA detailed daily effort information has been obtained for sampled vessels and a census of effort data has been obtained for some sub-metiers.

Deviations

None other than the addition of exhaustive sampling of some DRB sub-metier, which was carried out at national expense.

III.F.2.3 Follow-up of Regional and international recommendations

NA

III.F.2.4: Actions to avoid shortfalls

There were no Shortfalls

III.F.3 Landings

Sampling Strategy

Landings by vessels <10m LOA métier were sampled in the same way as effort is sampled and outlined above. The landings indicators from the sampling programme are:

- Total live weight per vessel
- Total value per vessel
- Unit value per species per vessel

These indicators can be disaggregated to live weight or value per day, per kw*day or per effort unit.

III.F.3.1 Achievements: Results and deviation from NP proposal

For vessels over 10m LOA a census of landings was obtained in 2012 from the national logbook data and, in the case of vessels less than 10m LOA, from port reports. The port report and buyers and sellers data is an estimate of the landings of each vessel and also all vessels less than 10m LOA landing into each port aggregated to the fleet level at that port.

III.F.3.2 Data quality: Results and deviation from NP proposal

Results

Landings data by species and métier have been exhaustively sampled by the national logbook programme and from national port report and buyers and sellers data programmes for vessels under 10m LOA.

Deviations

None

III.F.3.3 Follow-up of Regional and international recommendations

NA

III.F.3.4 Actions to avoid shortfalls

There were no shortfalls.

III.G Research surveys at sea

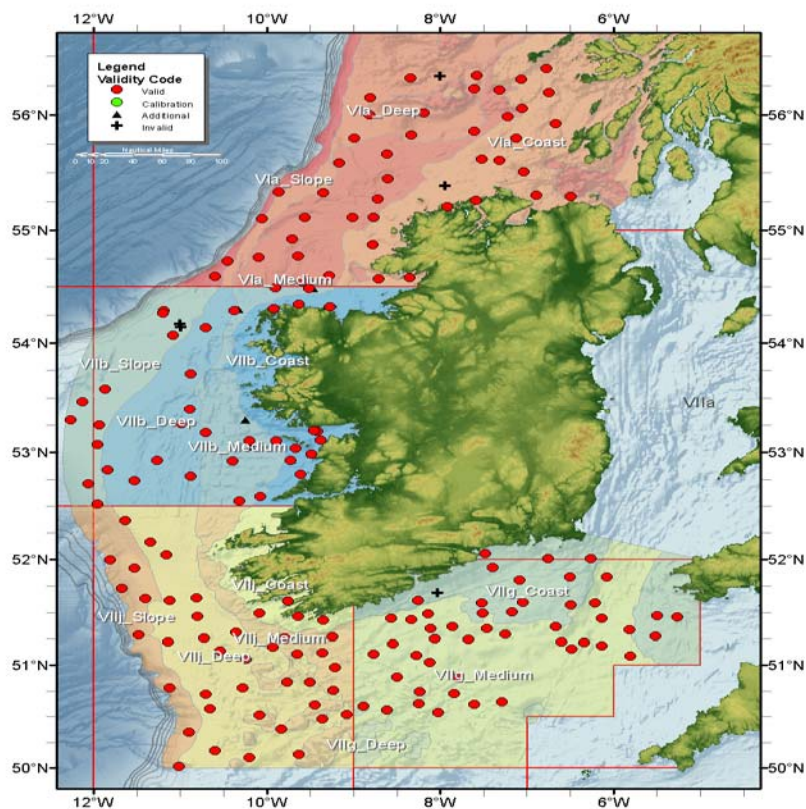
III.G.1 Achievements: Results and deviation from NP proposal

Seven surveys were planned and completed in 2012. Below are the details of each survey including a survey map.

Western IBTS 4th Quarter

The Western IBTS survey was very successful in 2012, achieving two additional fishing hauls on top of the planned sampling hauls in 45 out of the originally planned 47 days. This was due to very favorable weather conditions and the fact that no time was lost to gear damage last year.

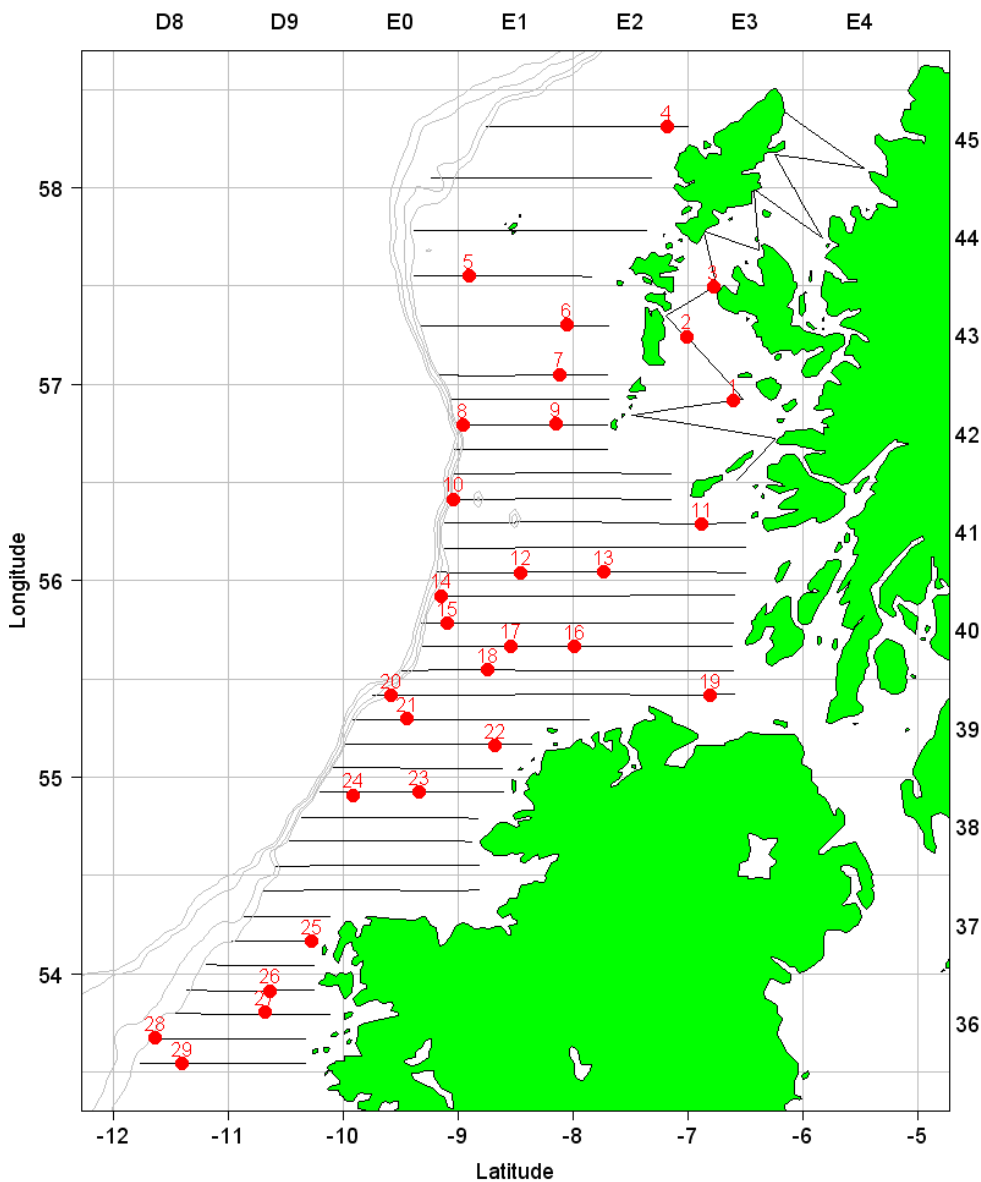
Fig 1: Western IBTS Q4 Groundfish survey cruise haul positions 2012. Valid hauls are red, and invalid stations are black



Blue whiting Survey

In 2012 the Blue whiting survey achieved its planned 18 days at sea and 100% of the proposed survey track. The Blue Whiting survey is an internationally coordinated survey, including 5 vessels, covering 89,000nmi² using 8,500 nmi of transects, therefore assigning planned number of hauls per vessel can be difficult. However, in spite of this 15 of the planned 20 fishing hauls were completed. The short fall in fishing hauls can be attributed to additional fishing marks of interest were registered.

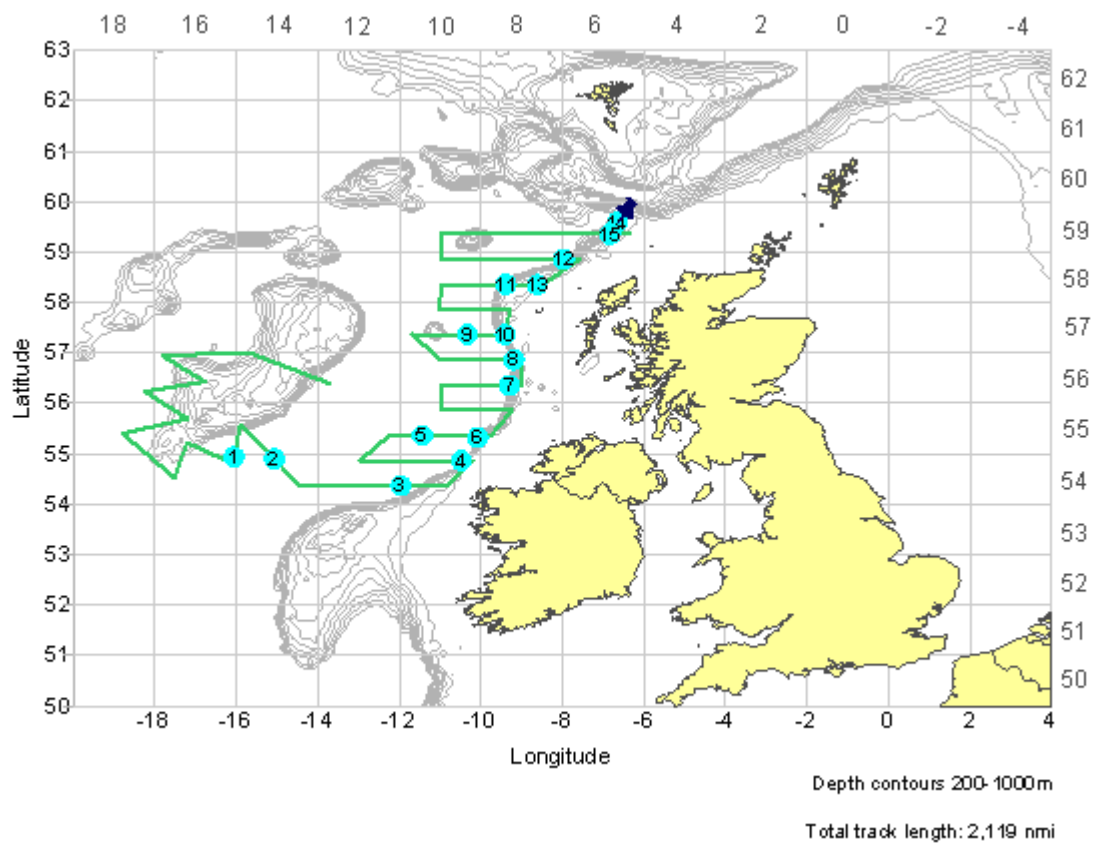
Figure 2 Blue whiting survey cruise track completed in 2012



Pre Spawning herring acoustic survey

The pre – spawning herring acoustic survey targets in relation to acoustic survey track, days at sea, oceanographic and marine mammals stations were all 100% achieved. 19 out of a planned 20 fishing hauls were completed.

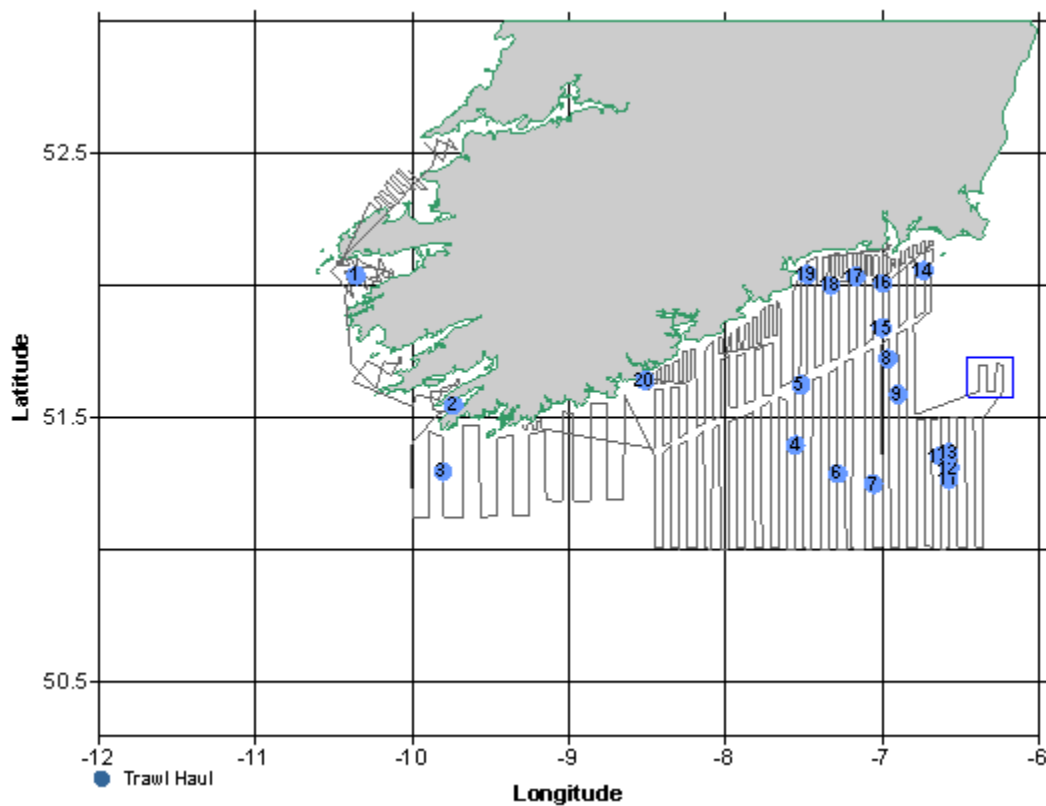
Figure 3 Pre-spawning herring acoustic survey cruise track completed in 2012



Spawning herring acoustic survey

The Spawning Herring Survey targets for days at sea, survey track, oceanographic and marine mammal stations were all achieved at least 100%. There was a short fall in the number of fishing hauls v's planned 20 were completed out of the 30 hauls planned. Acoustic surveying by its very nature is determined by the presence or absence of fish on the grounds at the time of surveying. Achieving pre-planned goals is entirely dependant on the amount of fish observed, more fish - higher target achievement, less fish - lower target achievement. Unlike the IBTS, survey trawling stations are not pre-determined but are directed on echotracess of interest.

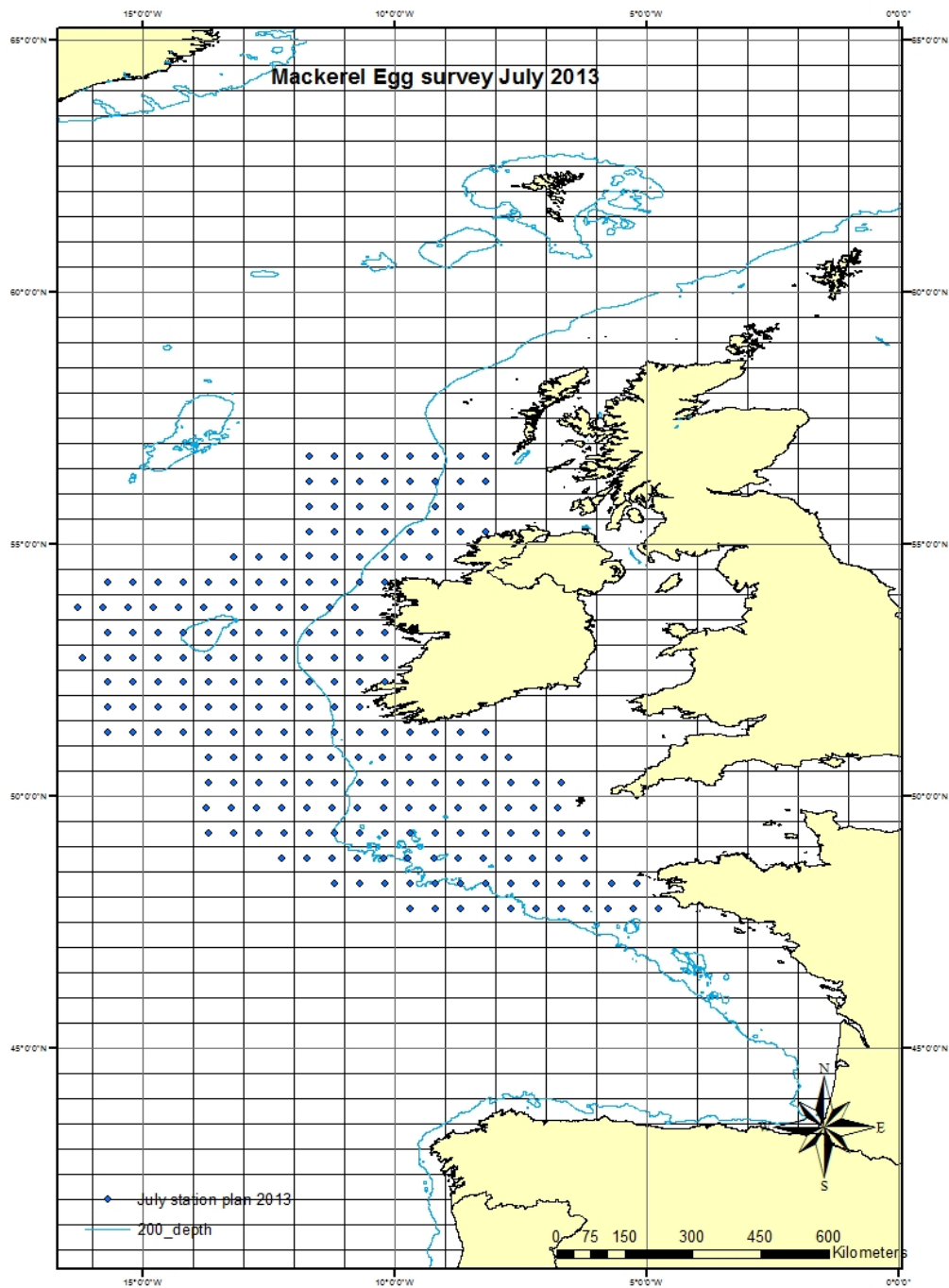
Figure 4 Herring spawning acoustic survey cruise track and haul positions 2012.



International Mackerel and Horse Mackerel Egg Survey

The International Mackerel egg survey is taking place currently, and its achievements will be reported on in the 2013 DCF Annual Report. Below is the proposed cruise track for the Irish leg of the upcoming July survey.

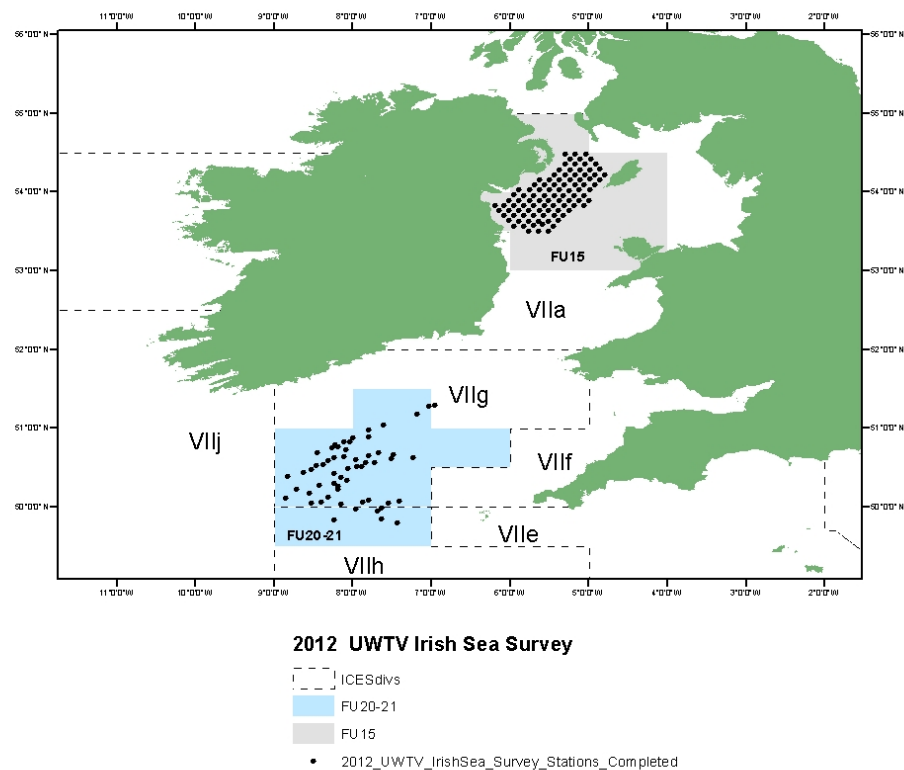
Figure 5 International Mackerel Egg survey cruise track Ireland. July 2013.



Nephrops UWTV Survey Irish Sea

In 2012 SGNEPS recommended that a CV (or relative standard error) of < 20% is an acceptable precision level for Nephrops UWTV surveys, from analysis of the historical survey sampling effort. This resulted in a reduction of the required sampling effort on Irish UWTV surveys, freeing up time to extend where possible survey coverage. For the Irish Sea survey this allowed Ireland to follow the SGNEPS recommendation of extending the survey area to cover FU20-21. All sampling targets were achieved on the Irish Sea UWTV 2012.

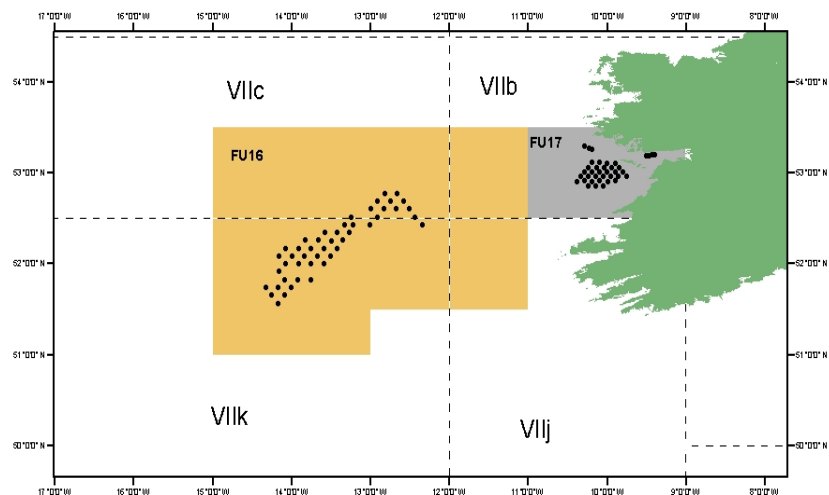
Figure 6 *Nephrops* UWTV Survey, FU15 and FU 20 - 21 Irish Sea survey cruise track and haul positions 2012.



Nephrops UWTV Survey Aran Grounds

The same recommendation also applied to the Aran Grounds UWTV survey, where SGNEPS recommended extending the survey coverage to include FU16 Porcupine Bank. In spite of the extension of the survey area, all targets were achieved.

Figure 7 *Nephrops* UWTV Survey, FU16 and FU 17 Aran Grounds survey cruise track and haul positions 2012.



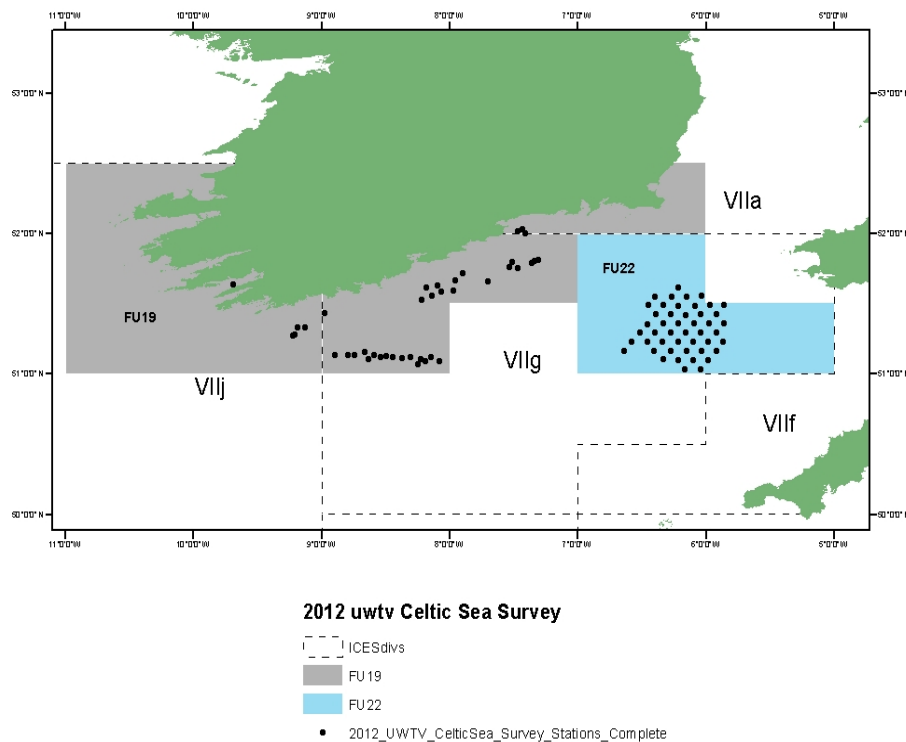
2012 UWTV Aran Survey

- ICESdivs
- FU16
- FU17
- 2012_UWTV_Aran_Survey_Stations_Complete

Nephrops UWTV Survey Celtic Sea

The same recommendation also applied to the Celtic Sea UWTV survey, where SGNEPS recommended extending the survey coverage to include FU19. The *Nephrops* UWTV Survey Celtic Sea, managed to complete 87% of the planned TV tracks. The short fall was due to the fact that this survey was hampered by technical downtime and some poor weather.

Figure 8 *Nephrops* UWTV Survey, FU19 and FU 22 Aran Grounds survey cruise track and haul positions 2012.



III.G.2 Data quality: Results and deviation from NP proposal

All data collected during the 2012 surveys were quality checked according to established criteria, and all survey data was put forward for use in the stock assessment process. The only shortfalls in survey targets occurred on the Blue whiting, Spawning Herring Acoustic and Celtic Sea UWTV surveys. These shortfalls were relatively minor and did not substantially affect the quality of the outputs of any of those surveys.

III.G.3 Follow-up of Regional and international recommendations

All recommendations received through the affiliated survey planning groups IBTS, WGNAPES and WGIPS and SGNEPS were addressed.

III.G.4 Actions to avoid shortfalls

Unfortunately it is not possible to plan for shortfalls due to adverse weather conditions. The survey ‘targets’ are based around what is considered achievable during the at sea period. However, every effort is made to maximize the output from each survey, in spite of difficult operating conditions due to bad weather and technical downtime.

IV. Module of the evaluation of the economic situation of the aquaculture and processing industry

IV.A Collection of data concerning the aquaculture

Please see tables IV.A.1 to IV.A.3 for details.

Data collection of aquaculture in IRL for 2011 consisted of a two component, single data gathering programs:

- A production and employment census survey was made in the first half of 2012 targeting a total population of 292 active production units. This was a reduction from the frame population in 2010 which was 303 units. The return rate was 80%.
- A non probability, 20 % sample survey of a frame population of 288 production units (excluding non-commercial State units) was made throughout 2012, gathering operational costs and financial variables. Return rates, for variables, varied with an average return rate of 14.42%.

Sampling sizes for some smaller segments and variables were greater than the 20% proposed in the NP, where available data provided an opportunity to improve estimates.

The segment ‘Salmon combined’ was used in the previous data call, for salmon companies operating both smolt hatcheries and on-growing units where their hatcheries were used to supply their own on-growing, sea cage units, rather than directly for profit. While this segment classification aptly describes the companies involved, according to Annex XI of regulation 199/2008, this segment indicates a land operation. However, the final product of Irish companies segmented in this manner, come from sea cages and therefore have been moved into the segment ‘Salmon cages’.

IV.A.1 Achievements: Results and deviation from NP proposal

Some segments needed to be amalgamated to reflect the changing economic reality and preserve individual company data confidentiality. As a result the populations, segments and sample sizes of the methodologies employed vary in quantity from the original NP. Furthermore, sampling sizes for some smaller segments and variables were greater than the 20% proposed in the NP.

For example ‘Trout’ segments have been amalgamated to ‘Trout On growing’. ‘Other marine fish combined’ no longer exists and ‘Other shellfish Other’ is a small population of diverse units producing novel species not provided for by the other segments choices.

IV.A.2 Data quality: Results and deviation from NP proposal

The quality of each DCF variable, data estimation surveyed is described in table IV.A.3 by the coefficient of variation.

The quality of the variable data surveyed by non-probability sampling is described in table IV.A.3. The formula used or the accuracy indicator, CV, is that recommended at the PGECON meeting of 16th-19th April 2012 in Salerno, Italy. These values ranged from 0.091 for ‘wages and salaries’ to 0.2604. The values overall have shifted closer to ‘0’ from the 2009 values, indicating an estimated decrease in variability within variables surveyed, possibly due to segment consolidation and cessation of smaller units.

For 2011 11 segments were fully used to disaggregate Irish aquaculture data from the original proposed 14 segments. The collapse of pacific clam (*Ruditapes philippinarum*) farming in 2012 means that for the sampling year 2013 the Clam segment will have to be eliminated as the affected companies and their units switch to oyster culture. Possible expansion within ‘Other shellfish other’ may necessitate the splitting up of this segment into two in future years.

IV.A.3 Follow-up of Regional and international recommendations

NA

IV.A.4 Actions to avoid shortfalls

The data gathering process has been streamlined to ease the survey burden on producers. The annual national survey which gathers the same production variables for national institutions and for bodies such as EUROSTAT and the FAO, as those required by the DCF, has been fused with the DCF survey to create one survey effort, using a form that is elongated with ‘financial’ questions for those PUs included in the DCF sample survey.

Producers are given the choice to furnish financial statements or fill the financial component of the form directly. For non-responsive PUs, census data is obtained, as stated above, by use of regional officer site visits and/or access to the most recent available data. Government and other websites will be accessed to a greater degree, to obtain financial data for non-responsive

producers as well as for validating data returned by respondents. Recourse in extreme cases can be made to national legislation requiring data supply from holders of aquaculture licenses.

IV.B Collection of data concerning the processing industry

See Tables IV.B.1 and IV.B.2, which provide a general overview of processing activities and the sampling strategy.

IV.B.1 Achievements: Results and deviation from NP proposal

Without the support of a common European legislative framework, which directly mandates the component sectors of the European seafood Industry to comply with the requirements of the DCF, Ireland continued to experience significant difficulties obtaining data on this sector.

In 2012, there was no data call for the processing sector. Data was collected for 2010 and 2011. The collection and collation of data from the processing sector was reliant on the use of audited accounts from the Companies Registration Office (CRO) and these were used in conjunction with the questionnaires completed in respect of applications for the receipt of EU or National grant aid.

Although there was deviation from the sampling targets detailed in the NP, the MS has a high degree of confidence that the data source used is of the highest quality.

Ireland will continue to improve data availability using every means and mechanism available along with the goodwill of the Irish Seafood Processing Industry.

IV.B.2 Data quality: Results and deviation from NP proposal

Although the NP detailed the use of percentage coverage of the segments as a measure of quality for parameters not collected exhaustively, it is currently considered that this measure is not appropriate or meaningful.

The MS did not use a census method to collect turnover and employment statistics. Best estimates were used to calculate these figures for employment based on the expertise of staff within the organisation and the information available to them.

IV.B.3 Follow-up of Regional and international recommendations

NA

IV.B.4: Actions to avoid shortfalls

The MS has developed a new, DCF data collection survey for the processing sector and is actively engaged in the improvement of data provision with the assistance of the processing industry. In addition, the MS is investigating the collection of DCF data from this sector, using proxy variables where difficulties providing data, proscribed in Appendix XII (199/2008/EC), are identified.

A dedicated member of staff has been assigned to the processing element of the DCF. The expertise they will bring will help to improve both the quantity and quality of the data collection.

The quantity of data collected has increased as the MS introduces a mandatory requirement for any applicant for EU or National grant aid to complete the DCF data collection form for the processing sector and this will continue in 2013.

V. Module of evaluation of the effects of the fishing sector on the marine ecosystem

V.1 Achievements: Results and deviation from NP proposal

Indicators 1-4: Conservation status of fish species Proportion of large fish Mean maximum length of fishes Size at maturation of exploited fish species

Data for the Indicators for this module were collected by survey.

- The Western IBTS Fourth Quarter Groundfish Survey collected data for Indicators 1- 4 in waters up to 200m deep from Divisions VI and VII, with the exception of VIIa and VIIf. (Years 2003-Present)
- The Spawning Herring Acoustic Survey collected data for Indicators 1-4 from VIIb, VIIj, VIIg and VIIaS in Q4 each year.
- The Pre-spawning Herring Acoustic survey collected data for Indicators 1-4 in VIa and VIIb in Q2.
- The Blue Whiting Acoustic Survey collected data for Indicators 1- 4 in VIa and VIb in March-April 2009.
- Underwater TV surveys collected data for Indicators 1- 4 in VIIb (Aran survey – Q2) , VIIa (Irish Sea survey – Q3), and VIIg (Celtic Sea Survey – Q3). (Years 2002-Present).
- The International Mackerel/Horse mackerel surveys collected data in ICES areas VIa, VII, VIII, IXa for indicator 1 in 2010, and will be completed again in 2013.

Indicators 5-7: Distribution of fishing activities, Aggregation of fishing activities, Areas not impacted by mobile bottom gears.

The Marine Institute was granted access to VMS data by SFPA for the purposes of the DCF. Currently, vessel position data is collected hourly or every two hours for all Irish vessels over 15 m. It has already proven possible to link daily VMS positional data with logbook information for the Irish fleet thus allowing all positional data to be classified to level 6. The distribution of fishing activities, aggregation of fishing activities and areas not impacted by mobile bottom gears can be mapped and provided as required.

Ireland continued to manage and analyse all of the relevant resulting data sets from the DCF process and made these data available to ICES STECF and other expert groups.

Indicator 8: Discarding rates of commercially exploited species

Metier based discard sampling is conducted as part of the concurrent sampling at sea programme. Details of this programme are described in III.C.2 with sampling effort by metier outlined in table III.C.3. and details on data collected by species shown in section III.C.5 and III.C.6 of the Annual Report 2012.. Trip specific discard rates by species measured in weight are raised to discard rates by quarter and metier using species landings data.

Indicator 9: Fuel efficiency of fish capture

The calculation of fuel efficiency is also described in section IIIB. Fuel efficiency of fish capture is defined in Appendix XIII of Commission Decision (2008/199/EC) as the ratio between value of landings and cost of fuel, and must be estimated by quarter and by metier. The inshore components were estimated from the following data collected on a daily basis under the sentinel vessel programme;

- Landings per species,
- Price per species,
- Fuel costs,
- Fuel prices.

These data, can be raised to the total active population of vessels <10 metres in length (LOA) and will be included in their respective national metier, by quarter.

Fuel costs received from vessels >10 meters length (LOA), targeted in the annual economic survey, are apportioned equally on an effort basis to their relevant metiers and quarters, and raised to the active population. Effort was based on a log-book analysis that apportioned each fishing trip to a particular metier (see Section III.F for more details).

V.2 Actions to avoid shortfalls

There were no shortfalls.

VI. Module for management and use of the data

VI.1 Achievements: Results and Deviations from the NP Proposal.

For Data transmission by Ireland please refer to Table VI.1 All relevant and requested data was submitted in 2012.

Data from port sampling is warehoused in the STOCKMAN system, which is a client-server relational database in SQL2005 with a graphical user interface (GUI) created in VB6 and Visual Studio. This database also houses data on biological variables collected under Module IIIE. In the past the port sampling information stored in Stockman had been collected by stock gear and area, however as a result of a modification to the database in 2009 this information is collected at the vessel trip level as required from the métier based sampling programme since 2009. As a part of the discard data migration to Stockman, audit controls were added to the discard data tables to facilitate effective data management in stockman. In addition the discard database front end was re-engineered to push the data into a SQL server database.

Transversal information is collected via Logbooks. A view of the logbooks database is maintained on the Marine Institute's network. This view is housed in a secure SQL Server 2005 database. The logbooks database has been managed according to protocols for production of databases at the Marine Institute, these protocols ensure security, integrity, and backup of the information. In 2012 the planned work on remediating the MI views of IFIS was not completed. IFIS data management were implementing the roll out of electronic logbooks to all vessels in the Irish fleet (above 12m) and needed to address several unforeseen issues with integrating ie catch (the UI software which facilitates the data entry for electronic logbooks), these needed to be addressed before the MI views could be remediated. The MI did however open a regular communication channel with the SFPA, and held several constructive meetings where the SFPA explained the business process of the logbook data acquisition. Spatial data on fishing vessel activity was updated through the VMS data. In 2012 the Marine Institute, continued to strengthen working relationships with the Naval forces FMC (fisheries monitoring and control center), to ensure timely delivery of VMS data on request, and to work with the database professionals in the FMC, to harmonize vessel tables between the various sources (VMS, Logbooks and Stockman).

Survey information is stored on individual databases. The IBTS survey database is based on SQL server 2008, which has improved the validation checks on the data and improved the quality. The

database also has a Datras export facility which is automated to facilitate upload of Irish IBTS data to Datras. A generic upload facility is available to allow data collected at sea on the RV's to be uploaded to the SQL server database on the MI network. This work is part of the ongoing improvement carried out on Ireland's DCF data holdings. Following completion of the *Nephrops* underwater TV survey database in 2011, work was completed in 2012 importing the historical data into this database. In addition a data acquisition solution for new wireless measuring calipers was developed and successfully deployed. The *Nephrops* underwater TV survey database stores survey metadata, burrow count, haul and fish data, as well as links to video data, and has analyses routines developed to facilitate the production of live burrow counts for the *nephrops* UWTV index.

Economic data are stored in an SQL Server database, located on a secure server within the BIM network. In 2012, the review of the database structure and function continued and various steps were initiated on foot of this review, to improve data storage and access. In addition, the development of dynamic links with national data sources was progressed with other national agencies (i.e. MI and SFPA).

The thrust of the data management programme is to consolidate data where possible, and centralize on more robust and secure enterprise-wide databases while continuing to enhance and further develop the suite of analysis and reporting tools available. Significant progress continues to be made to consolidate the range of databases and data management solutions for fisheries datasets. Data archiving is formalized, and the integration of survey datasets is well underway. The merging of the Discard and Stockman Databases has been completed, and has involved some detailed mapping of database entities.

Data exchange to the EU is still via Excel templates as supplied by the JRC. The data is pre-validated prior to submission by the import procedures (described below), but undergo additional validation and quality checks. The key shortcoming to supplying data via this route (to meet the format of STECF requests for data) remains the manual integration required between the Logbooks and Stockman databases. Integration of these two datasets has been deferred until the remediation of the logbooks views (necessitated by the introduction of the ERS system) has been completed. It is envisaged that a solution to the logbooks feed will be developed in 2013.

Quality control and validation procedures.

Data on biological variables from port sampling are collected according to documented SOP's. These SOP's cover areas such as data quality and checking and are follow closely PGCCDBS discussions and recommendations regarding international best practice. At the database front end there are validation procedures ensuring the integrity of data entered from biological sampling events. The database itself has a dedicated DBA (data base administrator) who checks inputs at a regular interval for range, date and sum cross checks.

Views of the logbooks data required for the DCF are generated by IFIS and downloaded periodically. The access to the Logbooks data continues to be via secure FTP transfer. The transfer method is efficient.

In 2012, the on-line, electronic submission of socio-economic data using interactive PDF forms, with in-built data checks provided validation, on submission, of these data. Where paper survey forms were returned, the interactive PDF form was used as the point of data entry and checking, for all such information.

Validation of financial information was provided by qualified accountants who endorsed survey forms containing financial data. The arrangement to coincide the collection of financial data with the final submission date for mandatory tax returns was well received and is considered to be a cost effective mechanism for the return of validated financial data.

The plan to create a secured web based work space was executed in 2011. The web based workspace is built using Microsoft sharepoint services. Initially the sharepoint extranet service is a document workspace, containing all the shared information relating to Irelands DCF programme. This service is accessible by all the DCF partners. Further development is envisaged after the completion of the logbooks upgrade, to enable dynamic views onto denormalised logbook data for Irish DCF partners without access to the Marine Institute network.

Use of the data

The IBTS groundfish survey and acoustic surveys are stored on SQL server databases, and these automatically generate output to internationally coordinated survey databases such as that in PGNAPES, PGHERS (now PGIPS) Fishframe and Datras.

Biological data from commercial fish sampling is transmitted to ICES for international stock assessment. These data are either raised by Ireland, or sent to the ICES stock coordinator. In most cases Ireland uses either the Fishframe or Intercatch format to transmit these data. In 2012 Ireland continued to use the tools developed by the COST project to analyse and report on the sampling data for the ICES WG's. Ireland has also been involved with plans for the establishment of a regional database, and are well prepared to be able to deliver data to this initiative when required.

The Survey Atlas was published in 2012 (<http://oar.marine.ie/handle/10793/792>) . This publication has also proved very popular with researchers and marine professionals, and facilitates the MI in disseminating data acquired under the DCF in a manner which is effective both in terms of cost and reach.

Ireland responded to all data requests from the EC in 2012, and achieved successful transmission in all cases except where the terms of the request were beyond the operational capacity of the data collection exercise. For example where an economic data request sought data which could not be provided due to the timing of financial reporting nationally (18 months post date).

Ireland is well on track to achieve what it has set out in the NP for 2011-2013. The consolidation of the discard database onto SQL server 2008, completion of work on the *Nephrops* underwater TV survey database and the development of the survey upload facility are notable achievements. In addition Ireland has developed a number of data tracking utilities which have streamlined the increasing complexity in the data collection process. For example discards and sample tracking utilities have been developed which monitor the status of samples and data sheets from the initiation of a sampling event through to completion. The DCF team are constantly improving their skills and a data analysis is now regularly executed through SQL and R. In addition the MI are now regularly using TFS (Microsoft Team Foundation Server) to manage the versioning and quality control of SQL and R code which is used generate analyses and respond to data requests.

VI.2 Actions to avoid shortfalls

The application of sound data management practices, alongside a continuing effort for upgrade and consolidation of databases and exploration tools, has helped to avoid many shortfalls with the Irish DCF data. However as with many EU MS access to logbooks and VMS data (which is not managed or owned by the primary fisheries lab involved with the DCF) has the potential to adversely affect Ireland's ability to comply with the DCF. To this end the Marine Institute has gone to great efforts to build and maintain good relationships with the fishing industry, and the State authorities who have primary responsibility for logbooks and VMS data, and this has provided a framework for improved cooperation and data transfer between these elements.

VII. Follow-up of STECF recommendations

Ireland has taken the recommendations made by EWG (Evaluation of the 2009, 2010 and 2011 Annual Reports and the evaluation of 2010-2011 National Programme) into consideration while preparing the 2012 Annual Report.

Evaluation of 2011-2013 National Programmes linked to the Data Collection Framework Report of the Subgroup on Research Needs (SGRN 10-01) specific to Ireland.

III B Economic variables

III B 1 Data acquisition:

Comments: Some issues in relation to the sampling methodology should be clarified by Ireland, in particular:

- The method for the calculation of FTEs: Ireland is invited to provide a method for calculating imputed value of unpaid labour.
Data used to calculate the Imputed value (i.e. FTE) of unpaid labour is provided through a specific question in the annual survey, which describes a family member's time, applied to relevant and appropriate tasks, not elsewhere addressed in the survey of associated labour. The threshold used, for one FTE, is 2000 hours.

- Further information on the method they use to ensure consistency of data coming from different data sources is to be provided.

Response: The issue of consistency of data coming from different data sources is recognized as being of significant importance. The introduction of bias in this area, is under continual assessment and is currently being addressed by restricting acceptance of data to a small number of official data streams (i.e. data items consistent with fields in annual company returns (provided via accountants), EU logbook data and Sales notes data).

III C Biological metier related variables (North East Atlantic Region)

III C1 Data acquisition

Comment: The following aspects require further clarification or modification in the NP:

- Some inconsistencies have been found in the relevant tables (e.g. coding of OTB_SPF_32- 69_0_0 should follow mesh size range, region not matching fishing grounds).

Response: All of the inconsistencies in the tables have been corrected and now are following the guidelines.

Comment : Rationale for merging of the pelagic metiers has to be clarified. :

Response: Within the North Atlantic, two pelagic metiers have been merged for sampling purposes mid-water otter trawls and mid-water pair trawls for small pelagic

fish. The majority of Irish effort directed towards small pelagic fish within the North Atlantic is carried out by mid-water pair trawls, although both gear types occur within the top 90% of landings/effort/value.

Two groups of métiers have been merged for sampling purposes within North Sea and Eastern Arctic. Small pelagic fish directed mid-water other trawls and mid-water pair trawls in area IV, and small pelagic fish directed mid-water other trawls and mid-water pair trawls in areas I and II.

As within the North Atlantic, mid-water pair trawls account for the majority of effort directed toward small pelagic fish. Within these North Sea and Eastern Arctic merged métiers, only mid-water pair trawls are ranked within the top 90%. Investigation into the length frequencies of each of the four main species targeted by Ireland, namely herring, mackerel, horse mackerel and blue whiting, show great similarity between the two gear types, supporting the merging of these métiers for sampling.

Comment : No mention of sampling for vessels under 10 meters.

Response : Selection of vessels for both on board sampling and for land based is done on a random basis and therefore vessels may be > or < than 10m in length. In the pelagic, Nephrops and the white fish sector the majority of the vessels are all >10 m. Relative few onboard samples are taken in the whitefish sector on vessels due to space considerations and vessel safety but these will be covered ashore during the concurrent sampling programme. In the inshore sector the majority of the vessels are <10m and there are plans to conduct up to 40 trips in this métier.

III D Biological recreational fisheries

Comment: This particular part of the programme only address in detail salmon fisheries. The unilateral decision of not collecting information for other mandatory species is not acceptable unless more solid information is provided.

Response: Ireland has no commercial bass fishery. Fishing mortality on coastal bass stocks arises from a limited rod and line, and primarily shore based, recreational fishery. Ireland will develop a sampling programme for bass in order to estimate total catch and age structure of bass in the landings from the recreational fishery. Inland Fisheries Ireland (IFI) and the Marine Institute will collaborate with angling clubs, charter fishing vessels and tourist businesses specialising in providing bass fishing facilities in order to sample this fishery. Sampling methodologies being developed by the ICES WG on Recreational Fisheries will be taken into account in this sampling programme. The programme will be initiated in 2011. It may be possible to retrospectively obtain approximate estimates of catch and landings for 2009 and 2010 by interviewing participants in this sector.

III E Biological stock-related variables

III E 5 Regional Coordination

Comment: Reference to the Regional Coordination Meeting maturity tables is missing.

Response: Updated copies of tables IIIC-IIIE and Annex 10 from the RCM NA 2009 were re – submitted to the EU Commission.

III F Transversal variables

III F 2 Effort

Comment: The requested derogations are not in compliance with the relevant Commission Decision and therefore can not be granted.

Action: The Member State understands that from 2011 onwards this information will be collected in the electronic log book and this will facilitate the member state in collecting the information.

IV MODULE OF THE EVALUATION OF THE ECONOMIC SITUATION OF THE AQUACULTURE AND THE PROCESSING INDUSTRY

IV A Collection of economic data for the aquaculture

IV.A.2 Data Acquisition

Comment: The methodology to calculate the variable "imputed value of unpaid labour" is to be described and the definition of financial costs used, need to be clarified.

Response: Data used to calculate the Imputed value (i.e. FTE) of unpaid labour is provided through a specific question in the annual survey, which describes a family member's time, applied to relevant and appropriate tasks, not elsewhere addressed in the survey of associated labour. The threshold used, for one FTE, is 2000 hours.

The definition of financial costs is that provided in Appendix XII of Commission Decision 2008/949/EC, footnote 7; "Interest costs of capital: Interest on the national 5 year Government bonds may be used as proxy for financial costs"

IVA 3 Estimation

Comment: Ireland is invited to explain how it intends to deal with non responses.

Response: The obligation to provide survey data is supported by national legislation. The procedure regarding non-responses by the due deadline is to contact the business in person, by telephone and send concurrent reminder letters. Should data be withheld, recourse shall be made to the provisions of National Legislation supporting the implementation of the Data Collection Framework.

IV B Collection of data concerning the processing industry

IVB 1 Data acquisition

Comment: The methodology to calculate the variable "imputed value of unpaid labour" is to be described and the definition of financial costs used, need to be clarified. Moreover, Ireland is asked to provide further information on the method used to ensure consistency of data coming from different data sources.

Response: Data used to calculate the Imputed value (i.e. FTE) of unpaid labour is provided through a specific question in the annual survey, which describes a family member's time, applied to relevant and appropriate tasks, not elsewhere addressed in the survey of associated labour. The threshold used, for one FTE, is 2000 hours.

The definition of financial costs is that provided in Appendix XII of Commission Decision 2008/949/EC, footnote 7; "Interest costs of capital: Interest on the national 5 year Government bonds may be used as proxy for financial costs"

The issue of consistency of data coming from different data sources is recognized as being of significant importance. The introduction of bias in this area, is under continual assessment and is currently being addressed by restricting acceptance of data to a small number of official data streams (i.e. data items consistent with fields in annual company returns (provided via accountants), EU logbook data and Sales notes data).

IVB 3 Data quality evaluation

Comment: There is no information on methods to assess data quality. This information is to be provided by Ireland.

Response: The methodology to assess data quality from this sector is restricted to the validation of data provided against published, end-of-year, abridged accounts posted under the provisions of National legislation.

Below are more generalized comments for all Member States, which were also considered and actioned by Ireland.

Source	Recommendation to MS	MS action
STECF PLEN 09-02	STECF recommends that MS: - include in their NPs for the period 2011-2013, a methodological report to describe the sampling strategies. STECF also recommends that MS adhere to the guidelines for the preparation of the methodological report given in Table 4.1.1 below (adapted from the report of the STECF-SGECA 09-02). - include in their annual Technical Reports, the data quality indicators given in Table 4.2.2 below (discussed under TOR 2 of STECF-SGECA 09-02).	Ireland has followed these recommendations in the NP 2010 implementation and reporting, as well as in the NP 2011-13.

Source	Recommendation to MS	MS action
SGRN 10-01 (Evaluation of NP proposals 2011-2013)	SGRN recommends MS to refer to ICES WKMERGE (ICES, 2010) for guidelines how to use sampling frame. SGRN notes that many National Programme proposals would have benefited from more thoroughly descriptions of the sampling designs, and recommends MS to make this description effort when revising their programmes 2012-2013. Table III.C.2 – SGRN considers that merging across regions & fishing grounds is not appropriate, and recommends MS sampling frame reflects the broader geographical area of the métier.	Ireland adheres to all of these recommendations.
SGRN 10-01 (Evaluation of NP proposals 2011-2013)	General comments regarding the fish processing industry: 1. SGRN recommends MSs to consult with the national statistical offices in order to improve efficiency and guarantee consistency in the data collection process. Efficiency can be improved because national statistical offices could already have information required to be collected under the DCF. Data consistency will be met if the same definitions are applied.	Ireland does consult with the national statistical office in order to improve efficiency and guarantee consistency in the data collection process.
STECF EWG 11-08 (Evaluation of AR 2010)	EWG 11-08 recommends that information and descriptions of the method/software used for calculation of CV's should be included (or referred to) in the AR if not provided in NP.	Ireland does provide a detailed explanation of it's cv calculation methodology in Module III.C
STECF EWG 11-08 (Evaluation of AR 2010)	EWG 11-08 recommends for the AR tables, Table II.B.1 (list of eligible meetings) that is provided by the Commission should be used and all meetings and not only the meetings attended should be provided.	Official meeting list table used.
STECF EWG 11-08 (Evaluation of AR 2010)	EWG 11-08 recommends that Table III.C.1, III.C.2 and III E 1 should not to be deleted from the AR. Maintaining the tables is what is expected. This should be included in the revision of the AR guidelines.	Ireland includes all tables in it's annual report.
STECF EWG 11-08 (Evaluation of AR 2010)	EWG 11-08 recommends that for the calculation of Capital value, all MS shall use PIM (Perpetual Inventory Method) in the future. A Workshop has already explained the method (DCF Workshop on Capital Valuation, Naples June 2011). MS should use this report in next AR . Also explore the need for a Training Workshop. This Report should be made available on the on DCF WEB site.	Ireland has used the PIM methodology in it's 2012 Annual Report.
STECF EWG 11-08 (Evaluation of AR 2010)	EWG 11-08 recommends that files with filters, hidden cells, track changes, coloured cells etc should not be submitted in AR	No filters or hidden cells/columns are left in the Annual Report when

Source	Recommendation to MS	MS action
		submitted.
STECF EWG 11-08 (Evaluation of AR 2010)	EWG 11-08 recommends that non conformities in the tables of the AR needs to be explained in the text.	Ireland supplies text explanations for all non – conformities.
STECF EWG 12-08 (Evaluation of AR 2011)	EWG 12-08 recommendations were all directed towards DG MARE and did not require a response from the MS.	Ireland fully supported the EWG recommendations regarding AR guidelines and AR evaluation templates updates, Data transmission failures assessment, pre – screening, New guidelines for submission of NP 2013 amendments in 2012

VIII. List of acronyms and abbreviations

Acoustic surveys Acoustic surveys use sound waves emitted from a "transducer" to estimate the density of plankton and fish shoals. The transducer is attached to a drop keel on the survey vessel, which is linked to an echo sounder in the vessel which records the shoals of fish as "marks" on a screen or paper trace. The density of these marks is used to calculate total biomass of a stock.

Age The number of years of life completed, here indicated by an Arabic numeral, followed by a plus sign if there is any possibility of ambiguity (age 5, age 5+).

BIM An Bord Iascaigh Mhara, The Irish Sea Fisheries Board, charged with responsibility for development of the fishing and aquaculture industries in Ireland. (see www.bim.ie)

By-catch Refers to discarded catch (see Discards) plus incidental catch not purposely targeted by the fishermen.

CFB Central Fisheries Board (www.cfb.ie)

CPUE /Catch Per Unit of Effort The catch of fish, in numbers or in weight, taken by a defined unit of fishing effort. Also called catch per effort, fishing success, or availability.

DAFM Department of Agriculture Food and Marine. (see www.dafm.gov.ie)

DCENR Department of Communications Energy and Natural resources (see www.dcenr.gov.ie)

DCF / Data Collection Framework EU Council Regulations 1543/2000, 1639/2001, 199/2008 established a community framework for the collection and management of the data needed to conduct the common fisheries policy. Each member state must collect data on the biology of the fish stocks, on the fleets and their activities and on economic and social issues

Discard Discards are defined as that part of the catch returned to the sea as a result of economic, legal or other considerations.

Discard rate The percentage (or proportion) of the total catch which is discarded.

FAT Fisheries Assessment Technician – regionally-based sea-going staff employed by FEAS.

Fishing Effort The total fishing gear in use for a specified period of time. When two or more kinds of gear are used, they must be adjusted to some standard type

Groundfish Species of demersal fish dwelling on, or close to the sea floor, as targeted in the annual Western IBTS 4th quarter survey around the Irish coast.

IBTS International Bottom Trawl Survey Working group

ICES International Council for the Exploration of the Seas –Ireland shares the Total Allowable Catches TACs for many stocks we exploit with our European Union partners. Because of this international dimension many stocks need to be assessed in international fora such as ICES.

ICCAT International Commission for the Conservation of Atlantic Tuna

Marine Institute The Marine Institute is Ireland's national agency with the following general functions: "to undertake, to co-ordinate, to promote and to assist in marine research and development and to provide such services related to marine research and development, that in the opinion of the Institute will promote economic development and create employment and protect the environment." Marine Institute Act, 1991 (see www.marine.ie)

Inland Fisheries Ireland (IFI) Inland Fisheries Ireland was formally established as the agency responsible for the conservation, protection, management, marketing, development and improvement of Ireland's inland fisheries and sea angling resources.

IFIS Integrated Fisheries Information System .Database held by DAFF with landings, effort and first sale value of fish species

FEAS / Fisheries Ecosystem Advisory Services – One of seven service areas of the Marine Institute, FEAS's mission is to assess, research and advise on the marine fisheries resource in Irish waters

HAWG Herring Assessment Working Group

LA Laboratory Analyst.

Latt Laboratory Attendant

MS Member State.

Nemesys *Nephrops* measuring system.

NP National Programme.

WGWIDE Working group on Widely distributed stocks

RCM Regional Co-ordination Meetings.

PGCCDBS, Planning group commercial catch discards and Biological sampling

WGCSE Celtic seas eco region working group

WGHMM Working group Hake Monk and Megrim

WGIPS ICES Working Group International Pelagic Surveys

WGNAPES ICES Working Group on North East Atlantic Pelagic Ecosystem Surveys

WGNEACS ICES Working Group on the North-east Atlantic Continental Slope Survey

Recovery Plan This is a multi-annual plan to recover seriously depleted stock. The plans generally involve agreed Harvest Control Rules, Technical Measures, Effort Controls and various control and enforcement measures.

Recruitment The amount of fish added to the exploitable stock each year due to growth and/or migration into the fishing area. For example, the number of fish that grow to become vulnerable to the fishing gear in one year would be the recruitment to the fishable population that year. This term is also used in referring to the number of fish from a year class reaching a certain age. For example, all fish reaching their second year would be age 2 recruits.

Sample A proportion or a segment of a fish stock which is removed for study, and is assumed to be representative of the whole. The greater the effort, in terms of both numbers and magnitude of the samples, the greater the confidence that the information obtained is a true reflection of the status of a stock (level of abundance in terms of numbers or weight, age composition, etc.)

SFPA Sea Fisheries Protection Agency

STECF The Scientific Technical and Economic Committee on Fisheries was established by the European Commission and comprises fisheries scientists and economists from the Member States. The role of STECF is to advise the European Commission on scientific, technical and economic issues related to the management of fisheries resources that are exploited worldwide by members of the European Union.

STO Scientific and Technical Officer

Stock A "stock" is a population of a species living in a defined geographical area with similar biological parameters (e.g. growth, size at maturity, fecundity etc.) and a shared mortality rate. A thorough understanding of the fisheries biology of any species is needed to define these biological parameters.

SSB / Spawning stock biomass The total weight of all sexually mature fish in the population. The size of SSB for a stock depends on abundance of year classes, the exploitation pattern, the

rate of growth, fishing and natural mortality rates, the onset of sexual maturity and environmental conditions.

STOCKMAN A custom developed relational database which houses the Marine Institute Fisheries Ecosystem Advisory Services sampling data.

TAC / Total Allowable Catch is the total regulated catch from a stock in a given time period, usually a year.

TL Team Leader

WKDRP Workshop on Discard Raising Procedures

WGMEGS ICES Working Group on Mackerel and Horse Mackerel Egg Surveys (WGMEGS)

IX. Comments, suggestions and reflections

The use of the field “Fishing ground” in tables III.C.1, III.C.3, III.C.5 and III.C.6 is unhelpful as many métiers take place in multiple fishing grounds. This requires the data to be disaggregated to a point where it becomes meaningless.

X. References

Efron, B. and Tibshirani, R.J., 1993. An introduction to the bootstrap. Chapman & Hall. CRC, 436pp. pp.

Gerritsen H, Lordan C (2006) Gutted to round-weight conversion factors for anglerfish (*Lophius piscatorius*) and (*Lophius budegassa*). Irish Fisheries Bulletin 26. 8pp. ISSN:1649 5055

ICES, 2007. Report of the herring assessment working group for the area south of 62°N. ICES CM 2008/ACOM:02. 601 pp.

STECF-SGRN, 2007. STECF Sub-group on Research Needs (SGRN). Review of list of surveys at sea (Appendix XIV of EU Commission Regulation N°1581/2004) with their priorities. Commission Staff Working Paper 2007:01. 25 pp.

WKMOG (2008) Report of the Workshop on Maturity Ogive Estimation for Stock Assessment (WKMOG). ICES CM2008/ACOM:33. 3-6 June 2008. Lisbon, Portugal.

Anon 1996 Manual for International Bottom Trawl Surveys (Revision V) Addendum to ICES CM 1996/H:1

ICES 2007. Report of the Workshop on the use of UWTV surveys for determining abundance in Nephrops stocks throughout European waters. ICES CM: 2007/ACFM: 14 Ref: LRC, PGCCDBS.

ICES 2008. Report of the Workshop and training course on Nephrops Burrow Identification (WKNEPHBID). ICES CM: 2008/LRC: 03 Ref: ACOM.

ICES. 2010. Report of the Workshop on methods to evaluate and estimate the precision of fisheries data used for assessment (WKPRECISE), 8-11 September 2009, Copenhagen, Denmark. ICES CM 2009/ACOM:40. 43 pp.

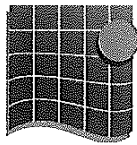
ICES. 2010. Report of the Joint ICES - STECF Workshop on methods for merging métiers for fishery based sampling (WKMERGE), 19–22 January 2010, Copenhagen, Denmark. ICES CM 2010/ACOM:40. 94 pp.

Minto, C. (1998) Precision level estimates: robust to small sample sizes of finite populations for the Data Collection Regulations.

(Small, I. (1991) Exploring data provided by angling for salmonids in the British Isles. In: Catch Effort Sampling Strategies - their application in Freshwater Fisheries Management. I.G. Cowx, (Ed.), Blackwell Scientific Publications Ltd.)

WKACCU, 2008. Workshop on Methods to Evaluate and Estimate the Accuracy of Fisheries Data used for Assessment. ICES CM 2008\ACOM:32, ICES, Copenhagen.

XI. Annexes – Bi – Lateral Agreements



Marine Institute
Foras na Mara

Bilateral Agreement between the Marine Institute Ireland and Marine Scotland (for the collection of length, maturity and age samples in accordance with EC Regulation 665/2008, laying down detailed rules for the application of Council Regulation (EC) 199/2008, and its Commission Decision 2008/949/EC.

Agreement: Twenty five vessels fishing on the Irish register, which operate and / or land into the UK for first point of sale will be sampled as part of the 2011-2013 National Programme under the requirements of the EC Data Collection Framework (199/2008). A portion of these vessels land into Scotland. The eventual additional sampling costs will be covered within the Scottish National Sampling Programme from 2011

Description of sampling: The sampling will be for length maturity and age of Demersal and Pelagic landings; sampling will be carried out in accordance with the Scottish National Sampling Programmes.

Sampling Intensity: Sampling intensity will be in accordance with the guidelines set down by Commission Decision 2008/949/EC.

Data responsibility: Scotland is responsible for submitting its data to the relevant ICES Expert Groups, and to the EC under the requirements of its Data Collection Framework. Scotland will provide the required data for the species that are requested by the relevant ICES Expert Groups, and will forward any data collected from Irish registered vessels and sampled by Scotland to the relevant Irish scientists.

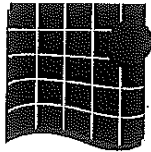
ALSO:

Agreement: A portion of forty five vessels fishing on the UK register, which operate and / or land for first sale into Ireland, will be sampled as part of the 2011-2013 National Programme under the requirements of the EC Data Collection Framework (199/2008). The eventual additional sampling costs will be covered within the Irish National Sampling Programme from 2011- 2013.

Description of sampling: The sampling will be for length maturity and age of Pelagic landings. Sampling intensity will be in accordance with the guidelines set down by Commission Decision 2008/949/EC.

Sampling Intensity: Sampling intensity will be in accordance with the guidelines set down by Commission Decision 2008/949/EC.

Data responsibility: Ireland is responsible for submitting its data to the relevant ICES Expert Groups, and to the EC under the requirements of its Data Collection Framework. Ireland will provide the required data for the species that are requested by the relevant ICES Expert Groups, and will forward any data collected from Scottish registered vessels and sampled by Ireland to the relevant Scottish scientists.



Marine Institute
Foras na Mara

Bilateral Agreement between the Marine Institute Ireland and France (Ministere de l'Agriculture et de la peche) for the collection of length, maturity and age samples in accordance with EC Regulation 665/2008, laying down detailed rules for the application of Council Regulation (EC) 199/2008, and its Commission Decision 2008/949/EC.

Agreement:

1. Fifty four vessels fishing on the French register, which operate and / or land into Ireland and transported for first point of sale to France, will be sampled as part of the 2011-2013 National Programme under the requirements of the EC Data Collection Framework (199/2008). The eventual additional sampling costs will be covered within the French National Sampling Programme from 2011.
2. In addition, four pelagic vessels fishing on the Irish register which operate and / or land for first sale into France, on an opportunistic basis, will be sampled as part of the 2011-2013 National Programme under the requirements of the EC Data Collection Framework (199/2008). The eventual additional sampling costs will be covered within the Irish National Sampling Programme from 2011.

Description of sampling:

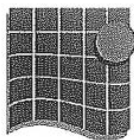
1. The sampling will be for length maturity and age of Hake, Monkfish and Megrim landings, sampling will be carried out in accordance with the French National Sampling Programme.

Sampling Intensity: In accordance with the rules laid down by the regulation.

2. The sampling will be for length maturity and age of mackerel, horse mackerel and herring landings, sampling will be carried out in accordance with the Irish National Sampling Programme.

Ten samples of herring, mackerel, horse mackerel and/or albacore tuna will be sampled annually by a contractor based in Douarnenez, France. This contractor will collect and primary-process the samples and send the data to the Irish Marine Institute where they will be aged. The data will be submitted by the relevant Irish scientist to WGWIDE, HAWG and/or ICCAT.

Sampling Intensity: Ten samples will be processed and age, sex, length, maturity information recorded. These data will be sent to the French scientist with responsibility for submitting French data to the ICES WGWIDE.



Marine Institute
Foras na Mara

Bilateral Agreement between the Marine Institute Ireland and Danish Institute for Fisheries Research, Denmark for the collection of length maturity and age samples in accordance with EC Regulation 665/2008, laying down detailed rules for the application of Council Regulation (EC) 199/2008, and its Commission Decision 2008/949/EC.

Agreement:

Five Vessels fishing on the Danish register, which operate and / or land for first sale into Ireland, will be sampled as part of the 2009 and the 2011-2013 National Programme under the requirements of the EC Data Collection Framework (199/2008). The eventual additional sampling costs will be covered within the Irish National Sampling Programme from 2011- 2013.

Description of sampling: The sampling will be for length maturity and age of Blue whiting landings, sampling will be carried out in accordance with the Irish National Sampling Programme.

Sampling Intensity: A maximum of 3 samples of blue whiting will be collected from Danish vessels landing into Irish ports.

Data responsibility: The samples will be processed and age, sex, length, maturity information recorded. These data will be sent to the Danish scientist with responsibility for submitting Danish data to the ICES WGWIDE.

Denmark is responsible for submitting the data to the relevant ICES Expert Groups, and to the EC under the requirements of its Data Collection Framework. Ireland will provide the required data for the species that are requested by the relevant ICES Expert Groups, and the data for the additional species to Denmark as and when requested.

Contact persons: frank.obrien@marine.ie National Correspondent

Marine Institute, Ireland

Signed:

Date : 11/02/2010

Danish Institute for Fisheries Research

Signed:

Date: 12/2-2010



Marine Institute
Foras na Mara

Rinville

Oranmore Galway

Tel: 353 91 387 200

Fax: 353 91 387 201

Email: institute.mail@marine.ie