

## LRC Resolutions 2007

**2007/2/LRC01** The **Planning Group for Herring Surveys [PGHERS]** (Chair: Norbert Rohlf, Germany) will meet at IJmuiden, The Netherlands, from 22–25 January 2008 to:

- a) combine the 2007 survey data to provide indices of abundance for the population of herring and sprat within the area, using the FishFrameAcoustics database;
- b) Provide HAWG with the time series of acoustic sprat abundance by age;
- c) coordinate the timing, area and effort allocation and methodologies for acoustic and larvae surveys for herring and sprat in the North Sea, around Ireland, Division VIa and IIIa and the Western Baltic in 2008;
- d) examine the interpretation of echograms between the participants of the 2007 acoustic surveys to ensure quality control and proper exchange of experience;
- e) review histological studies to determine the accuracy of herring maturity reading;
- f) report on the possible bias introduced by a change in gear in the Dutch herring larvae survey;
- g) consider changing the name of the North Sea herring and sprat acoustic survey (as coordinated by PGHERS) to the North Sea Pelagic Fish Acoustic Survey;
- h) examine the potential for a synoptic acoustic survey in the summer for the Hebrides, Malin and Irish shelf areas, in conjunction with PGHERS surveys of VIaN and the North Sea, and report to SGHERWAY.

PGHERS will report by 12 February 2008 for the attention of the Living Resources, and the Resource Management Committees as well as to HAWG.

### Supporting Information

<b>PRIORITY</b>	The International Acoustic and Larvae surveys provide essential data for the assessment of pelagic stocks in and around the North Sea (Divisions IV, VIa, IIIa, and Western Baltic).
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	<p>The work of this Expert Group refers to items 1.2.1, 1.2.2, 1.13 (Strategy plan ICES)</p> <p><b>Term of Reference a) and b)</b></p> <p>Surveys for herring are currently carried out by five different countries, covering the whole of the North Sea, Western Baltic and the west coast of Scotland. Effective co-ordination and quality control for these surveys is essential and while data combination can be managed by mail, a meeting is required to ensure that the larvae database is being used correctly and that the acoustic surveys are being carried out and analysed on a consistent basis.</p> <p><b>Term of Reference c)</b></p> <p>Interpretation of echograms is subject to different national institutes. Exchange of experience is one of the vital interests of the PG to enable all involved participants comparable background information and to reduce the risk of loss in information due to changing personnel.</p> <p><b>Term of Reference d)</b></p> <p>Modern approaches to determine the accuracy of herring maturity reading may be one source of information to be implemented in further developments of the sampling design in the herring surveys. A meeting is required to inform the participants about recent results with respect to maturity and fat content of herring and to discuss possible implications for the next survey period.</p> <p><b>Term of Reference e)</b></p> <p>The Dutch larvae survey has changed the sampling gear and the first results of comparison studies presented to PGHERS in 2007 shows a dramatic effect on larvae abundance and length frequencies. However, due to technical problems with flowmeters in this first approach, a further study shall be conducted.</p>

<b>RELATION TO STRATEGIC PLAN:</b>	Directly relevant – it allows ICES to respond to requested advice on herring and sprat fisheries.
<b>RESOURCE REQUIREMENTS:</b>	No specific resource requirements beyond the need for members to prepare for and participate in the meeting
<b>PARTICIPANTS</b>	At least one scientist (preferably the cruise leader) from each survey; hence a minimum of 6 members.
<b>SECRETARIAT FACILITIES</b>	None
<b>FINANCIAL:</b>	None
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	The survey data are prime inputs to the assessments which provide ACOM with information required for responding to requests for advice/information from NEAFC and EC DGXIV.
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	Survey results are conveyed directly to the Herring Assessment Working Group for the Area South of 62°N (HAWG). HAWG to see this report
<b>LINKAGES TO OTHER ORGANISATIONS:</b>	None

**2007/2/LRC02** The **Planning Group on the North-east Atlantic continental slope survey** [PGNEACS] (Chair: Leonie Dransfeld,\* Ireland), will be established and will meet in Galway, Ireland from 29 January–1 February 2008 to:

- a) review existing NE deep-water & slope surveys in terms of sampling strategy, protocols and intercomparability;
- b) based on a) suggest a plan for coordinating internationally an annual or regular survey of the north-east Atlantic continental slope from ICES Subareas VI in the north to Subareas IX and X in the south and area CECAF 34.1.1, commencing 2009.
- c) suggest suitable survey design, technology, sampling effort and sampling protocols for the proposed survey in order to provide the following future data to WGDEEP, WGEF and WGDEC and other ICES Expert Groups as appropriate:
  - i) abundance indices for roundnose grenadier, black scabbardfish, deep-water sharks, bluemouth redfish and greater forkbeard and other species as appropriate;
  - ii) biological parameters for the key species;
  - iii) biodiversity indices for fish communities and benthos as appropriate;
  - iv) data on habitat mapping (video/TV) of identified seamounts and other vulnerable habitats;
  - v) fish /environment interaction in the deepwater habitats;
  - vi) seabird and marine mammal distribution
  - vii) samples for genetic and contaminant studies
- d) develop and standardize methods for the computation of abundance indices;
- e) review existing databases for bottom trawl surveys such as DATRAS for the management and storage of data from the survey;
- f) co-ordinate the production and dissemination of species identification and maturity keys for the proposed deepwater survey.

PGNEACS will report by 26 February 2008 for the attention of the Living Resources Committee, and ACOM.

## Supporting Information

<b>PRIORITY:</b>	High. This helps meet a request from NEAFC. The work of the Group is essential if ICES is to collate even the most basic data and to progress the application of assessment techniques.
<b>SCIENTIFIC JUSTIFICATION:</b>	This planning group would fulfil the need of internationally coordinating the existing dedicated deepwater surveys that are currently being carried out along the European continental shelf. These are the UK (Scot) deepwater trawl survey in area VI, the Irish deepwater trawl survey in area VI & VII and possibly the Spanish survey currently carried out on Hatton Bank (VIb1 and XIIb). In addition, the planning group would explore the possibilities of appending deep-water work on the IBTS surveys currently carried out by France, Spain and Portugal to cover the areas not accounted for by existing deep-water surveys. This internationally coordinated deepwater survey would be a potential source of abundance indices for roundnose grenadier, black scabbardfish, deep-water sharks, bluemouth redfish and greater forkbeard and also be a platform for carrying out studies of seamounts identified by WGDEC and any related studies of the efficacy of closed areas.
<b>RESOURCE REQUIREMENTS:</b>	No specific resource requirements, beyond the need for members to prepare for and participate in the meeting.
<b>PARTICIPANTS:</b>	These would include scientists that are involved in the scientific and technical running of the NEA deepwater slope surveys that will be co-ordinated by this group. In addition it will include scientists that are involved in the assessment of NEA deepwater species and scientific experts in the fields of deepwater fish biology and taxonomy as well as the ecology of deepwater habitats.
<b>SECRETARIAT FACILITIES:</b>	This group is unlikely to have a high demand on the resources of the Secretariat, other than assistance in finalising the report. The option of housing the survey data in ICES, e.g. in the DATRAS database will be explored.
<b>FINANCIAL:</b>	None specific
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	Living Resources Committee will be the parent committee, but there will be links with ACOM.
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	Close links with WGDEEP and WGEF to provide abundance indices on deepwater species including deepwater sharks and links with WGDEC for the collection and analysis of environmental data and deepwater habitat characterisation. Links with IBTS in order to benefit from expertise in the international co-ordination of trawl surveys.
<b>LINKAGES TO OTHER ORGANISATIONS</b>	NEAFC.

**2007/2/LRC03**      **A Workshop and training course on *Nephrops* burrow identification [WKNEPHBID]** (Chair: Ewen Bell\*, UK) will be established and take place in Belfast, Northern Ireland, UK, from 25–29 February 2008 to:

- a) for each survey area develop a reference set of video runs or images that can be used for training and consistency evaluations;
- b) produce other reference material for training e.g. keys;
- c) agree a common protocol for the counting of burrow complexes to be adopted (taking into account findings of this WKNEPHTV and the further analyses on historical count data);
- d) develop a framework to make formal calibrations between counters (in-house) and ring tests (between labs) (e.g. the UK NMBAQC system <http://www.nmbaqcs.org>) using video material on DVD shared between the relevant laboratories;
- e) training existing and new burrows counters using newly developed material;
- f) develop a common data exchange format of burrow counts to facilitate inter-laboratory comparisons of counting performance;
- g) consider methodologies to objective describe tow quality rather than the current rather subjective descriptions.

WKNEPHBID will report by 1 April 2008 for the attention of the Living Resources Committee and ACOM.

### Supporting Information

<b>PRIORITY:</b>	This workshop is high priority and comes directly from the recommendations of WKNEPHTV 2007.
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	In the ICES area annual UWTV surveys for <i>Nephrops</i> provide the main fishery independent data on stock development for stocks which account for the majority of the landings. WKNEPHTV identified training, training material, standard protocols and intercalibration as priority areas to be addressed with a new workshop in 2008.  The workshop will serve as a focus before which training and reference materials for each survey will be produced and at which standard procedures will be agreed. The workshop will promote best practice in QA and QC through developing a training and exchange framework similar to those used in fish age estimation work within ICES. The workshop will ensure that existing burrow counters are agreeing on similar identification criteria. The workshop will provide an opportunity to train new burrow counters particularly in laboratories developing new surveys.
<b>RESOURCE REQUIREMENTS:</b>	Several national labs and university departments are using the approach and data and expertise can already be drawn on. It is expected that outcomes from the group will be picked up by users of the technology and existing funding focused more effectively as a result. Additional resources in the future may be required.
<b>PARTICIPANTS:</b>	The Workshop is expected to attract wide interest across the ICES <i>Nephrops</i> community and is also expected to involve other guest experts who can potentially add value to the process. A participation of around 30 is expected
<b>SECRETARIAT FACILITIES:</b>	None.
<b>FINANCIAL:</b>	To ensure wide attendance of relevant experts some additional funding may be required and efforts will be made to explore a range of funding opportunities including the EU DCR.
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	Given the utility of surveys in assessment and advisory work the results will be linked to ACOM.
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	There will be important outcomes from this Workshop of interest to the Living Resources Committee.
<b>LINKAGES TO OTHER ORGANIZATIONS:</b>	Outcomes from this Workshop will have relevance to a variety of groups involved in the use of UWTV to assess Mediterranean <i>Nephrops</i> stocks.
<b>SECRETARIAT MARGINAL COST SHARE:</b>	None.

**2007/2/LRC04**      **The Working Group on Fish Ecology [WGFE]** (Chair: D. Duplisea, Canada) will meet at ICES Headquarters, Copenhagen from 3–7 March 2008 to:

- a) consider the reports of the Ad Hoc Groups on;
  - i) Hydrographic Attributes
  - ii) Trend Analyses & Quantifying Relationships
  - iii) Formulating Hypotheses and Predictions about Mechanisms
  - iv) Selecting Species for More Intensive Investigations

and use their recommendations concerning (1) recommended time series, (2) analytical methods and suitable software, (3) hypotheses and guidance for their use, and (4) a suggested list of species for intensive study, to complete the assessment of changes in the distribution and abundance of marine species in the OSPAR maritime area in relation to changes in hydrodynamics and sea temperature.

- b) revisit and update the 2004 work of WGFE on the IUCN red listing criteria for marine fish in order to answer a request to:

- i) review the IUCN criteria and evaluate suitability and usefulness of using these on marine fish species. Compare the criteria with the ICES series of reference points.
  - ii) evaluate whether the risk assessment criteria used by IUCN are suitable for marine fish species and, if necessary, other and more appropriate methods and procedures.
  - iii) discuss and suggest procedures within ICES to gather useful biological information about non-commercial species that may improve the red list evaluation of these species.
- c) assess the various modelling approaches, which WGECO (ICES, 2007) noted were in development, to determine which, if any, of these models might also be suitable to address this advice issue, and to this end apply the MSVPA in forecast mode (MSFOR) to complete the matrix below;

Fishing mortality averaged across the seven main demersal species (cod, haddock, whiting, saithe, sole, plaice, Norway pout)	EcoQO Indicator Proportion (by weight) of fish > 40cm in length	Time to reach Indicator target
0.85Fpa	0.27	?
	0.30	?
	0.33	?
1.00Fpa	0.27	?
	0.30	?
	0.33	?
1.15Fpa	0.27	?
	0.30	?
	0.33	?

- d) reconsider the relationships between EFH, abundance-occupancy and changing fish distribution in relation to climate and fishing pressure:
  - i) define potential fish habitats.
  - ii) examine processes underlying expansion and contraction of fish spatial distributions using case studies.
  - iii) test the ability of methods to uncover relationships in abundance-occupancy.
  - iv) examine the relation between spatial organisation and community and population metrics.
- e) evaluate metrics to characterise, monitor and detect changes in the structure, function and productivity of fish communities;
- f) evaluate methods to detect changes in fish distributions using a large set of maps.

WGFE will report by 30 April 2008 to the attention of the Living Resources Committee, with ToR (a) for WGECO as soon as possible after the meeting.

### Supporting Information

<b>PRIORITY:</b>	High
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	<ul style="list-style-type: none"> <li>a) This is required to answer an OSPAR request.</li> <li>b) This is required to answer a request from Norway.</li> <li>c) This is intended to provide substantive advice regarding the precise management action required to meet the Fish Community EcoQO</li> </ul>

	<p>target of “The proportion (by weight) for fish greater than 40cm in length should be greater than 0.3” (with a <math>\pm 10\%</math> range in target values) and the likely time scales involved to reach these targets.</p> <p>d) Essential fish habitat studies have implications to management issues and will also aid in the interpretation of abundance-occupancy relationships. EFH work particularly supports Action Points 1.2.1, 1.2.2 and 1.4.2.</p> <p>e) Fish distribution mapping studies in relation to environmental variables relates to action point 1.6.</p>
<b>RESOURCE REQUIREMENTS:</b>	
<b>PARTICIPANTS:</b>	The Group is normally attended by 15–20 members and guests.
<b>SECRETARIAT FACILITIES:</b>	None.
<b>FINANCIAL:</b>	No financial implications.
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	<p>The development of EcoQO indicators is work that should be conducted in conjunction with WGEF (Elasmobranch Fishes).</p> <p>Work on simulation in fish communities for the testing of EcoQOs is closely related to the development of multispecies modelling in WGSAM.</p> <p>The work of this group is an important information source for WGECO (Ecosystem Effects of Fishing)</p>
<b>LINKAGES TO OTHER ORGANIZATIONS:</b>	–

**2007/2/LRC05** The **Working Group on Seabird Ecology [WGSE]** (Chair: Jim Reid\*, UK) will work initially by correspondence and will meet in Lisbon, Portugal, 10–14 March 2008 to:

- a) consider the reports of the Ad Hoc Groups on;
  - i) Hydrographic Attributes
  - ii) Trend Analyses & Quantifying Relationships
  - iii) Formulating Hypotheses and Predictions about Mechanisms
  - iv) Selecting Species for More Intensive Investigations

and use their recommendations concerning (1) recommended time series, (2) analytical methods and suitable software, (3) hypotheses and guidance for their use, and (4) a suggested list of species for intensive study, to complete ‘the assessment of changes in the distribution and abundance of marine species in the OSPAR maritime area in relation to changes in hydrodynamics and sea temperature.
- b) review criteria used elsewhere to assess the need for national plans of action for seabirds (FOA NPOA-Seabirds) and recommend one set of criteria for use by the European Commission;
- c) establish a list of seabirds known or likely to caught in longline fisheries in EU waters and as far as possible describe the status of the populations of these seabirds in each of ICES areas [III, IV, VI, VII, VII, IX and X, the western Mediterranean, Tyrrhenian Sea, Ionian Sea, Aegean Sea and eastern Mediterranean] and the status of any seabird populations that migrate into these areas from elsewhere in the world;
- d) review information on the bycatch in long-line fisheries in the above sea areas and where possible estimate a total annual catch of seabirds (numbers per 1000 hooks set/species/longline fishery);
- e) evaluate mitigation measures in use to reduce this bycatch;
- f) based on the above analyses, prioritise research and monitoring needs for longline fisheries in EU waters;

- g) finalize the consideration of ecological issues linked to the circulation of parasites and pathogens within seabird populations;
- h) peer review revised OSPAR nominations of Balearic shearwater, European shag, Greater scaup and White-winged scoter for the OSPAR list of threatened and declining species.

WGSE will report on ToR a) – f) by 15 April 2008 to the Advisory Committee (and a) to WGECO) and on ToR g) by 30 April 2008 to the Living Resources Committee. ToR h) will be dealt with by correspondence by 14 December 2007 (assuming documents received from OSPAR by 14 November 2007) to report to the Advisory Committee.

### Supporting Information

<b>PRIORITY:</b>	This is the only forum for work being carried out by ICES in relation to marine birds. If ICES wishes to maintain its profile in this area of work, then the activities of WGSE must be regarded as of high priority.
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	<p>a) This is required to answer an OSPAR request.</p> <p>b) - f) These are all parts of a request for advice received from the European Commission. ICES will seek the cooperation of other relevant bodies to ensure the attendance of experts from the Mediterranean attend the meeting of WGSE. Further input will be required from other parts of ICES on fisheries matters</p> <p>g) This ToR could not be finalised at the 2006 WGSE meeting.</p> <p>h) This required to answer an OSPAR request.</p> <p>Further detail of all external requests and guidance on the nature of the output needed from WGSE will be provided by the Advisory Management Group.</p>
<b>RESOURCE REQUIREMENTS:</b>	Facilities for WGSE to work in Portugal are anticipated to be excellent.
<b>PARTICIPANTS:</b>	The Group is normally attended by ca. 15 members and guests. The Working Group should be able to achieve most the above objectives. However, some members may not be able to attend through lack of funding. Funding of these members from Member Countries would be very welcome. Funding for attendance of expert not from Member countries may be required.
<b>SECRETARIAT FACILITIES:</b>	None beyond the usual report completion services.
<b>FINANCIAL:</b>	There are some financial implications in the attendance of experts from non ICES Member Countries.
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	Advisory Committee
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	WGSE is keen to continue the process of integration of seabird ecology into ICES work.
<b>LINKAGES TO OTHER ORGANIZATIONS:</b>	EU, OSPAR, HELCOM

**2007/2/LRC06 A Workshop on Seabird Ecological Quality Indicator [WKSEQUIN]** (Chair: Ian Mitchell\*, UK) will be established and will meet back to back with the meeting of WGSE in Lisbon, Portugal from on 8–9 March 2008 to:

- a) develop an ecological quality objective on seabird population trends, through work to complete previous ICES work on:
  - i) compiling meta-data on monitoring across the OSPAR Maritime Area;
  - ii) developing standardised monitoring methods and protocols;
  - iii) standardising interpretation of monitoring results;
- b) initiate the development of seabird population related indicators of ecological quality comprised of “objectives,” “targets” and “limits.” At least one EcoQO indicator with its associated objective, target and limit, should be prepared as an example of what others might look like.

WKSEQUIN will report by 15 April 2008 to the attention of the Living Resources Committee and ACOM. Initial outputs from the workshop should be made available for WGSE.

### Supporting Information

<b>PRIORITY:</b>	High
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	The Workshop is a response to an OSPAR request  In relation to this request BDC noted that the ICES Working Group on Seabird Ecology (WGSE) consider that the above work could be expedited by the convening of a special study group or a dedicated workshop.
<b>RESOURCE REQUIREMENTS:</b>	Facilities for the back-to-back WGSE/Workshop are needed.
<b>PARTICIPANTS:</b>	The WGSE participants as well as other relevant experts may be invited for this Workshop
<b>SECRETARIAT FACILITIES:</b>	None.
<b>FINANCIAL:</b>	12 grants each of 6.000 DKK (800 Euro) will be available for non-government scientists participating in the Workshop
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	Advisory Committee
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	WGSE
<b>LINKAGES TO OTHER ORGANIZATIONS:</b>	OSPAR

**2007/2/LRC07**      The **Planning Group on North Sea Cod and Plaice Egg Surveys [PGEGGS]** (Chair: C. Fox, UK) will meet in Lowestoft, UK, 13-14 May 2008 to:

- a) take forward planning for a North Sea wide ichthyoplankton survey in 2009;
- b) to consider the advice from WGZE on the value of collecting additional zooplankton samples during future North Sea ichthyoplankton surveys in 2009;
- c) prepare an action plan to ensure archiving of data collected in 2004.

PGEGGS will report by 9 June 2008 for the attention of the Living Resources and the Resource Management Committees.

### Supporting Information

<b>PRIORITY:</b>	The proposed activities of this Group will ensure that the results of the 2004 North Sea Egg Survey are secured for the long-term and progress planning for a repeat survey in 2009. The planned 2009 surveys are important in that they will confirm findings from 2004 in relation to locations of cod spawning and further investigate the level to which cod in the northern North Sea are actively spawning. It is also planned to attempt to produce an egg production estimate for plaice in the southern North Sea. These results are important in relation to on-going management issues with these two key commercial stocks. Consequently, these activities are considered to have a high priority.
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	Action Plan: 1.2.1, 1.2.2, 1.8, 1.10 Terms of reference a) The rationale for establishing coordinated international North Sea ichthyoplankton surveys was presented in the report of PGEGGS which met in IJmuiden from 24–26 June 2003 and endorsed by the LRC. A successful survey was planned and undertaken in 2004 under the direction of PGEGGS. The results confirmed reduced egg production for plaice compared with earlier surveys and raised important scientific questions regarding effective cod spawning areas.  Term of reference a) Particularly for cod the 2004 results need to be confirmed and in particular the apparent low egg production of in northerly areas investigated. The situation should be monitored by regular surveys. Because of the cost of undertaking such surveys, PGEGGS has recommended that they be

	undertaken every 5 years.  Monitoring spawning areas of main fish species has been recommended as a high priority for Ecosystem Based Approach to Management by the Bergen Declaration Meeting of Scientific Experts.
<b>RESOURCE REQUIREMENTS:</b>	No additional resources are requested at this stage
<b>PARTICIPANTS:</b>	See Annex 1 of PGEGGS Report
<b>SECRETARIAT FACILITIES:</b>	None.
<b>FINANCIAL:</b>	No financial implications.
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	Data are required by the ICES Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak.
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	Links should be established with the Working Group on Zooplankton Ecology since additional plankton samples could be collected during the surveys at minimal extra cost. The value of such additional sampling should be explored in conjunction with WGZE.
<b>LINKAGES TO OTHER ORGANIZATIONS:</b>	No formal linkages

**2007/2/LRC08** The **Baltic International Fish Survey Working Group [WGBIFS]** (Chair: Henrik Degel\*, Denmark) will meet in Gdynia, Poland from 31 March – 4 April 2008 to:

- a) combine and analyse the results of the 2006 acoustic surveys and experiments and report to WGBFAS;
- b) update the hydro-acoustic databases BAD1 and BAD2 for the years 1991 to 2007;
- c) plan and decide on acoustic surveys and experiments to be conducted in 2008 and 2009 to increase survey catchability of fish;
- d) discuss the results from BITS surveys performed in autumn 2007 and spring 2008;
- e) plan and decide on demersal trawl surveys and experiments to be conducted in autumn 2007 and spring 2008; update and correct the Tow Database;
- f) review and update the Baltic International Trawl Survey (BITS) manual;
- g) review and update the Baltic International Acoustic Survey (BIAS) manual;
- h) study the vertical distribution of the cod during the BITS survey in a situation with oxygen deficiency close to the bottom;
- i) discuss the extension of the DATRAS data in time and space;
- j) report to WGBFAS on the following issues:
  - i) Perform an evaluation of tuning data compilation for BITS autumn survey, taking into account possible cod distribution differences during spring and autumn surveys (e.g. pre-spawning season and feeding season in homothermic conditions). Is it appropriate for autumn surveys to apply the same calculation procedure for survey index estimation by ages and years as for spring survey?
  - ii) Perform an evaluation of tuning data available for the Kattegat cod assessment in order to explore the possibility of combining the indices that could potentially result in fewer, but more consistent time series. Taking into account possible spatial distribution differences between spawning (i.e. first quarter of the year) and non-spawning periods.
  - iii) Evaluate the BITS first quarter surveys in the western Baltic (RV “Havfisken” & RV “Solea”) in order to explore the possibilities to establish only one tuning index for the cod stock assessment in this area.
  - iv) provide WGBFAS for the herring stock assessment in the Central Baltic (SD 25-27, 28.2, 29 and 32) with the following area corrected acoustic time series at least back to 1991:

- tuning fleet index by age (numbers in millions)
- biomass estimates by age and SD (t)
- 0-group estimates (numbers in millions)

WGBIFS will report by 1 May 2008 for the attention of the Living Resources Committee and ACOM.

### Supporting Information

<b>PRIORITY:</b>	The work of the Group is essential to the development of internationally coordinated trawl surveys and research on medium- and long-term changes of population structure of Baltic cod, herring and sprat stocks. These stocks are key elements of the Baltic Sea ecosystems.
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	The most important future activities are to combine and analyze acoustic survey data for the Baltic Fisheries Assessment Working Group, develop a disaggregated hydroacoustic database, plan and decide on acoustic surveys and experiments to be conducted. The quality assurance of ICES will require achievements towards a fully agreed calibration of processes and internationally agreed standards. [Action Numbers a): 1.2.1, 1.2.2 b): 1.2.2, 1.13.3 c): 1.11 d): 1.2.1, 1.2.2 e): 1.11, f): 1.11, g): 1.11, h): 1.13.4, 1.11 i): 1.13.4 j): 1.13.4 k): 1.13.4, 1.11]
<b>RESOURCE REQUIREMENTS:</b>	No special/additional resources required.
<b>PARTICIPANTS:</b>	Relevant scientists from all institutes that participate in the Baltic International Fish Survey
<b>SECRETARIAT FACILITIES:</b>	Normal Secretariat facilities are necessary for running the meeting.
<b>FINANCIAL:</b>	
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	ACOM: The quality of stock assessments and management advice of Baltic herring, sprat and cod stocks.
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	WGBFAS, SGMPB, Resource Management Committee, Fisheries Technology Committee/ Study Group on Target Strength Estimation in the Baltic Sea (SGTSEB), Baltic Committee
<b>LINKAGES TO OTHER ORGANISATIONS:</b>	IBSFC
<b>SECRETARIAT MARGINAL COST SHARE:</b>	ICES:80% IBSFC:20%

**2007/2/LRC09**      **The Working Group on Mackerel and Horse mackerel egg surveys [WGMEGS]** (Chair: P. Alvarez, Spain) will meet in IJmuiden, The Netherlands, 7–11 April 2008 to:

- a) analyse and evaluate the results of the 2007 mackerel and horse mackerel egg surveys of the western and southern areas;
- b) calculate the egg production:
  - i) total seasonal stage 1 egg production estimates for mackerel separately for western and southern component.
  - ii) total seasonal stage 1 egg production estimates for horse mackerel for western stock.
  - iii) Po estimates for horse mackerel for southern stock (DEPM application).
- c) Analyse and evaluate the results of the mackerel and horse mackerel fecundity and atresia sampling for mackerel and horse-mackerel southern stock:
  - i) analyse and evaluate the results of the horse mackerel batch fecundity and spawning fraction in the southern stock;
- d) evaluate the results of studies on horse mackerel fecundity determination and proxies on the basis of data collected during the 2007 surveys and in other relevant work (captive studies);

- e) provide estimates of the spawning stock biomass of mackerel, using stage 1 egg production estimates and the estimates of fecundity and atresia, separately for the western and southern areas;
- f) provide estimates of the spawning stock biomass of horse mackerel, using Po production estimates and the estimates of batch fecundity and spawning frequency for southern stock;
- g) evaluate the quality and reliability of the 2007 survey in the light of the previous surveys.

WGMEGS will report by 1 June 2008 for the attention of the Living Resources and the Resource Management Committees.

### Supporting Information

<b>PRIORITY:</b>	Essential. Terms of Reference are set up to provide ACOM with the information required for responding to requests for advice/information from NEAFC and EC DGXIV.
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	<p>Action Plan No: 1.</p> <p>The egg survey provides the only fishery-independent stock estimate for north-east Atlantic mackerel and for both the western and the southern horse mackerel spawning component. The surveys provide the most essential indices for the tuning of the VPAs. The survey is based on a time-series since 1977.</p> <p><b>Term of Reference a)</b></p> <p>This aspect is especially relevant as CEFAS withdrawn from the survey and will no longer to provide adult mackerel .A review of surveys coverage (in time and space), including modifications, and adaptations are analysed and discussed. The WG will make recommendation if were necessary.</p> <p><b>Term of Reference b)</b></p> <p>Total seasonal stage 1 egg production for mackerel and western stock horse mackerel are calculated using routine methodology and it is compared with those obtained in previous year. Special attention will be paid in the application of the DEPM for southern stock horse mackerel.</p> <p><b>Term of reference c)</b></p> <p>WGMEGS set up a detailed adult sampling for fecundity and for atresia in mackerel. The degree of compliance of sampling is assessed and the difficulties reported are discussed. Variations within and between institutes are minimized thanks to an inter-change and inter-calibration plans designed “ad hoc”.</p> <p><b>Term of reference d)</b></p> <p>Important effort has been carried out in order to identify any factor to convert eggs production into SSB in horse-mackerel. According to last year’s survey, neither lipid content nor stomach content seemed to provide good results. High variability was observed between institutes. In 2007 only one institute, IMARES is in charge for this task. Additionally, captivity studies were proposed in order to confirm, definitively, the fecundity strategy for horse-mackerel. We will look closely at these experiments.</p> <p><b>Term of reference e)</b></p> <p>Based of the total eggs production, fecundity and atresia data estimates of the spawning stock biomass and variance are provided and are compared with previous year.</p> <p><b>Term of reference f)</b></p> <p>Daily Egg Production Method (DEPM) for southern horse mackerel is applied at the first time in Portuguese waters. This change in the methodology is consequence of serious evidence of indeterminate fecundity of this species.</p> <p>Due to recent modifications of horse mackerel stock boundaries, no historical series of stock biomass estimates are available.</p> <p><b>Term of reference g)</b></p> <p>Analysis of surveys coverage, eggs identification, adults sampling and intercalibration exercise is discussed and compared with other years. Additionally, operational methods are checked and Manual protocol is reviewed.</p>
<b>RESOURCE REQUIREMENTS:</b>	None. The meetings are partially funded under the EU data directive

<b>PARTICIPANTS:</b>	N, NL, P, ESP, UK (Scotland), D, Ireland, Usually 25 – 30 participants
<b>SECRETARIAT FACILITIES:</b>	None.
<b>FINANCIAL:</b>	No financial implications.
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	ACOM
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	Reports to the Living Resources and the Resource Management Committees, as well as WGMHSA. Other less formal links with WGLESP, and WGACEGG
<b>LINKAGES TO OTHER ORGANIZATIONS:</b>	

**2007/2/LRC10** The **Working Group on Beam Trawl Surveys [WGBEAM]** (Chair: Ingeborg de Boois\*, The Netherlands) will meet in IJmuiden, The Netherlands from 13–16 May 2007 to:

- a) prepare a progress report summarising the results of the 2007 offshore and inshore beam trawl surveys;
- b) tabulate population abundance indices by age-group for sole and plaice in the North Sea, Division VIIa and Divisions VIIId-g;
- c) further co-ordinate offshore and coastal beam trawl surveys in the North Sea and Divisions VIIa and VIIId-g;
- d) evaluate and report on methodology and performance of calculating population abundance indices, taking into account the key issues involved in the index calculation;
- e) continue development of a manual to improve standardisation of sampling protocols, surveys gears and quality control aspects;
- f) continue work of developing and standardising an international (fish and epifauna) database of offshore beam trawl survey data and co-ordinate such activities with those of the IBTSWG;
- g) present a list of criteria for surveys that will be coordinated by WGBEAM and consider if the Bay of Biscay Sole survey matches the criteria.

WGBEAM will report by 31 August 2008 for the attention of the Living Resources and the Resource Management Committees, and ACOM.

### Supporting Information

<b>PRIORITY:</b>	Essential. Beam trawl surveys provide essential abundance indices for the assessments of North Sea and area VII plaice and sole stocks.
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	<p>WGBEAM is particularly active in addressing the ICES' action plan Goal 1 issues. The beam trawl surveys are an important source of information that allows quantification of stock structure, dynamics, and spatial distribution of commercially and ecologically important demersal flatfish as well as epibenthic invertebrate species. The aim is to develop a standardized monitoring program that can adequately deliver this information.</p> <p><b>ToRs a) and b)</b> are standard tasks for WGBEAM i.e. collating data in a standardised manner and making the data and extractions of the data accessible to the scientific community. The results can be used for tuning assessments and ecosystem monitoring. [Action number 1.2.2]</p> <p><b>ToRs c)</b> There continues to be a need to focus on coordination of both offshore and coastal beam trawl surveys. [Action number 1.11]</p> <p><b>ToR d)</b> A key issue for the WG is the methodology used for estimating abundance an in particular the issue of gear efficiency [Action number 1.11, 1.13.4]</p> <p><b>ToR e)</b> The WG will assist in developing standard protocols for sampling, survey design and implementation. [Action numbers 1.11 and 1.13.1]</p> <p><b>ToR f)</b> Additional work is needed to ensure data from all the surveys can be provided to ICES in compliance with DATRAS [Action number 6.1]</p>

<b>RESOURCE REQUIREMENTS:</b>	The research programmes which provide the main input to this group are already underway, and resources already committed. The additional resource required to undertake additional activities in the framework of this group is negligible.
<b>PARTICIPANTS:</b>	Experts actively involved in the beam trawl surveys should participate.
<b>SECRETARIAT FACILITIES:</b>	None
<b>FINANCIAL:</b>	No financial implications
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	The Terms of Reference are set up to provide ACOM with the information required to respond to requests for advice/information from NEAFC and EC DGXIV.
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	Resource Management Committee, in particular IBTSWG , WGNSSK, WGNSSD & WGSSDS
<b>LINKAGES TO OTHER ORGANISATIONS:</b>	None

**2007/2/LRC11**      **The Working Group on the Biology and Life History of Crabs [WGCRAB]**  
(Chair: Julian Addison, UK) will meet in Brest, France, from 19–21 May 2008 to:

- a) define and report on stock structure / management units for crab stocks;
- b) compile data on landings, discards, effort and catch rates (CPUE) for the important crab fisheries in the ICES area;
- c) provide standardised CPUE, size frequency and research survey data;
- d) review and compare assessment methods for crab fisheries and the associated data requirements;
- e) review biological information that is required for providing standardised indices and for analytical assessments;
- f) assess and report on the effects of disease on crab fisheries, and produce a manual for the fishing industry on Hematodinium infection of crabs including bio-security.

WGCRAB will report by 1 July 2008 for the attention of the Living Resources Committee and ACOM.

### Supporting Information

<b>PRIORITY:</b>	The fisheries for crabs are becoming socio-economically more important and trans-national in Europe and Canada with the demise of fin fisheries in some regions. Management of stocks in Europe is usually by technical measures only and there are generally no management instruments to control effort. Knowledge of the population dynamics of these species is also weak. These stocks may be at risk from over-fishing. The activity of the Group is, therefore, considered to be of high priority in particular if it's activity can move towards resource assessment without losing biological inputs.
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	<p><b>ToR a)</b> Although crab stocks are heavily fished and there is no effort control in European fisheries, catch rates appear stable or are increasing. In part this increase in catch rates may be due to an expansion of fishing grounds and an increased understanding of stock structure will be necessary for the proper management of crab stocks, both nationally and internationally. Information on both the biotic environment including genetics studies and the physical environment are critical in identifying the stock structure of crabs to ensure effective stock management. [Action Plan Number 1.2.1].</p> <p><b>ToR b)</b> The European <i>Cancer</i>, <i>Maja</i> and <i>Paralithodes</i> stocks, some of the Kamchatka crab (<i>Paralithodes camtschatica</i>) and the Atlantic Canadian snow crab (<i>Chionoecetes</i>) stocks are apparently in a phase of expansion with effort, catch, and CPUE increasing in a number of fisheries. In addition these fisheries are becoming more international in nature and more highly capitalised with the expansion of effort to offshore grounds. [Action Plan Number 1.2.2].</p> <p><b>ToR c)</b> There is a high reliance on CPUE data in the assessment of European crab fisheries and this is likely to remain the case in the medium term. Size frequency data are also collected in a number of fisheries. Small scale temporal</p>

	<p>and spatial variability in size frequency data may affect the estimates of fishing mortality in analytical assessments. Methods of aggregation of size frequency data are therefore important. In Canada snow crab are assessed by trawl and pot surveys. Longer and better quality time series of data and automated methods for acquisition of CPUE data are becoming available. These data are reliable indicators of changes in stock abundance. More international collaboration and standardisation of methods for monitoring and assessment will be necessary given the increasing trans-national distribution of crab fishing. [Action Plan Number 1.2.2].</p> <p><b>ToR d)</b> A wide range of stock assessment methodology is currently used in crab fisheries from simple indicator-based approaches through conventional size-based assessment methods to Bayesian approaches. The data requirements associated with each type of methodology need to be reviewed as the first step in providing information on stock status for the important crab fisheries in the ICES area. [Action Plan Number 1.2.2].</p> <p><b>ToR e)</b> Changes in stock characteristics have important implications for analytical assessments. Biological information is required to provide standardised indices and for use in analytical assessments, and biological characteristics of stocks may change due, for example, to the impact of size selective and single sex fisheries, through by-catch in other fisheries or through the impact of other seabed uses, such as gravel extraction. [Action Plan Numbers 1.2.1, 1.6, 2.13, 3.16].</p> <p><b>ToR f)</b> Disease can play an important role in driving the dynamics of crab stocks, and it is important that appropriate monitoring programmes are in place and that the fishing industry is fully aware of how to identify and mitigate against the effects of disease.</p>
<b>RESOURCE REQUIREMENTS:</b>	Existing national programmes provide the main input for discussion. The level of activity and approaches taken in these programmes determine the capacity of the Group to make progress.
<b>PARTICIPANTS:</b>	The Group is normally attended by some 15 members and guests. Additional members working on other <i>Cancer</i> and King crab species in particular and specialists in resource modelling of fisheries data should be invited into the Group in order to deliver the terms of reference. Comparison of <i>Cancer pagurus</i> with <i>C. borealis</i> and <i>C. irroratus</i> on the east and west Atlantic may be informative.
<b>SECRETARIAT FACILITIES:</b>	None.
<b>FINANCIAL:</b>	No financial implications.
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	ACOM interest for data on landings, discards and effort
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	Resource Management Committee.
<b>LINKAGES TO OTHER ORGANIZATIONS:</b>	None.

**2007/2/LRC12**      The **Working Group on Crangon Fisheries and Life History** [WGCRAN] (Chair: Andy Reville, UK) will meet in Texel, The Netherlands during the week of 26–30 May 2008 to:

- a) explore and make available data sources required for the development of a *Crangon* biomass estimate;
- b) further improve the current swept-area estimate of *Crangon*;
- c) develop an alternative estimate of *Crangon* biomass in the Wadden Sea area;
- d) enhance knowledge of *Crangon* catchability;
- e) review of MSC certification process;
- f) collate and update landings and effort data;
- g) review recent *Crangon* related R & D activity.

WGCRAN will report by 1 July 2008 for the attention of the Living Resources Committee and ACOM.

## Supporting Information

<b>PRIORITY:</b>	<i>C. crangon</i> fisheries are economically important with landings value that rank this species in the top three species caught from the North Sea.
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	Despite the economic importance and regional dependencies of this species, we still have much to learn and understand on the natural history of this species, particularly in respect of its ecology, stock dynamics, mortality patterns, distribution etc. The work contributes to action plan 1.2.1 'Understand and quantify the biology and life history, stock structure, dynamics, and trophic relationships of commercially and ecologically important species.'
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN CONTINUED:</b>	<p>For the production of more robust and flexible managerial advice, we need to combine our current knowledge of fisheries landings and effort with a good supportive biological understanding of the <i>Crangon</i> stocks and their ecological interactions. To this end, we make this our priority for the WGCAN.</p> <p>Substantial progress has been made in the development of a <i>Crangon</i> biomass estimate. The initial calculation was a first step to formulating a more probable estimate. The first improvement to the estimate will be through the inclusion of survey data from Germany. Several other sources of data have also been identified which may be useful in the development of the current model, including the Sole Net Survey (SNS), Belgian survey and the North Sea Epibenthic Survey. These data sources will be explored, useful information will be identified and made available for the biomass estimate model.</p> <p>Resources have become available to generate an independent estimate of <i>Crangon</i> biomass in the Wadden Sea area. This work will be used to compliment and aid the development of the initial estimate. As a means to improve both of estimates, additional work will be undertaken to enhance understanding of the catchability of <i>Crangon</i>. The initial biomass estimate used catch efficiencies of 1. It is necessary to use catch efficiency values derived from scientific investigation. This work will take the form of a reviewing existing literature and conducting at-sea experiments.</p> <p>The <i>C. crangon</i> fishery may also become a focus of further attention in the future, particularly in relation to its discarding practices, impacts upon benthic communities, technological innovations (i.e. electric shrimp beam trawl), the efficacy of existing technical measures, economic performance, and the sustainability of stocks.</p> <p>This attention may arise directly from the current process of MSC (Marine Stewardship Council) certification that is now underway, renewed NGO activity and interest, licensing of fisheries activities within Wadden Sea Marine Protected Areas, etc. It is considered important to fully keep informed updated on the MSC certification process.</p>
<b>RESOURCE REQUIREMENTS:</b>	The research programmes which provide the main input to this group are already underway, and resources already committed. The additional resource required to undertake additional activities in the framework of this group is negligible.
<b>PARTICIPANTS:</b>	The Group is normally attended by ~12 members and guests.
<b>SECRETARIAT FACILITIES:</b>	None.
<b>FINANCIAL:</b>	No financial implications.
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	ACOM interest for landings and effort data.
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	There is linkage to the Living Resources Committee and WGBEAM
<b>LINKAGES TO OTHER ORGANIZATIONS:</b>	CWSS = Common Wadden Sea Secretariat, TMAP= Trilateral Monitoring and Assessment Programme

2007/2/LRC13

The ICES/GLOBEC Working Group on Life Cycle and Ecology of Small Pelagic Fish [WGLESP] (Chair: P. Petitgas, France) will meet by correspondence to:

- a) prepare a document compiling the knowledge assembled by SGRESF on life cycle patterns and meso-scale oceanographic features for small pelagic fish in the North East Atlantic, to be proposed for publication as a Cooperative Research Report;
- b) summarise outcomes from past activity (e.g. SGRESF, OSPAR request, 2006 Theme Session B, 2007 Theme Session G, WKLTVSWE, WKTEST) to document the mechanisms and controls of changes in spatial distributions and migration patterns;
- c) report new results and methods for modelling habitat occupation;
- d) liaise with other ICES groups of the Oceanography Committee and suggest ways to collaborate to address hydro-climate forcing on spatial distributions of pelagic fish.

WGLESF will report by 1 May 2008 on ToR b) for the attention of WGECCO and by 30 June 2008 for the attention of the Living Resources Committee, the Oceanographic Committee and GLOBEC/SPACC on the remaining ToRs.

### Supporting Information

<b>PRIORITY:</b>	The work of the Group is essential if ICES is to progress the understanding of environmental forcing on life history, spatial and population dynamics of pelagic fish to provide alternative basis to management on stocks recognised to fluctuate under environmental forcing. There is no other group within ICES on this thematic that is also key for recovery plans of depleted stocks.
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	The purpose of the WG is i) to integrate various survey data together as well as with meteo, satellite, fishery and/or ecosystem model outputs and ii) develop understanding of how the spatial dynamics of the biological cycle and the stock dynamics are related to the ecosystem thus increasing ICES ability to use ecological information in assessment and prediction of small pelagics. The WG will work on different case studies in the ICES waters.  This WG addresses Goal 1 Understand the physical, chemical, and biological functioning of marine ecosystems, in particular action numbers 1.2.2 Changes in spatio-temporal distributions in relation with environmental change, 1.6 assess and predict impact of climate variability and 1.7 play an active role in collaborations between ICES and other international research such as GLOBEC. This WG is also related to Goal 4 Advise on the sustainable use of living marine resources, in particular action number 4.11 Develop the scientific basis for an ecosystem approach to management.
<b>RESOURCE REQUIREMENTS:</b>	No specific resource requirements beyond the need for members to prepare for and participate in the meeting.
<b>PARTICIPANTS:</b>	The Group is normally attended by some 15 members and guests. These would include scientists working on survey data, population modelling, environmental change and scientists participating to GLOBEC/SPACC.
<b>SECRETARIAT FACILITIES:</b>	None specific
<b>FINANCIAL:</b>	None specific
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	Link WGRESF ; Link with ACOM through particular ToRs (e.g. Ospar request)
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	Link with WGPBI and WGRP of the Oceanography Committee (link fish populations to meso-scale physical structures, use of hydrodynamics model outputs). Link with groups dealing with environmental and fisheries survey data.
<b>LINKAGES TO OTHER ORGANIZATIONS:</b>	This group is acknowledged to be of relevance to the GLOBEC/SPACC programme by its executive committee.

### 2007/2/LRC14 The Working Group on Cephalopod Fisheries and Life History [WGCEPH]

(Chair: Graham Pierce,\* UK) will work by correspondence in 2008 to:

- a) update and explore landing statistics across the ICES area;
- b) report on innovative cephalopod research results in the ICES area;
- c) finalize production of *CRR* and submit for publication.

WGCEPH will report by 1 July 2008 for the attention of the Living Resources Committee, ACOM.

### Supporting Information

<b>PRIORITY:</b>	High. The work of the Group is of high priority to ICES because cephalopods are an important component of marine ecosystems.
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	<p>Cephalopods support important fisheries in the ICES area. However, they remain outside the scope of the European Community's Common Fisheries Policy and understanding of stock dynamics, particularly in European coastal waters, remains heterogeneous: although population assessments and fishery diagnostics are developed in some areas, time series of recruitment estimates are still too short to analyse stock/recruitment relationships.</p> <p>Specific comments to the Terms of Reference are:</p> <p><b>ToR a)</b> This activity remains fundamental to the work of the Group. The past broadening of the remit to include effort, discard, and survey data was useful but improved data, and improved access to data, are needed before the collection of the same may be resumed. [Action Number 1.2.2]</p> <p><b>ToR b)</b> With the current uncertainty on the level of financing that may be obtained to proceed research on cephalopods in European waters, it is to a large degree difficult to predict what the direction of the research will be. Thus not being able to be pro-active on the research, we consider that being reactive will help maintain the interest and demonstrate the advantages of the work that can be carried out, while submitting results and analyses that will be directly applicable to the ICES action plan. It is expected that several new research projects will be developed on a local basis, which will be relevant to several action plan points [e.g. assessment in the U.K. to action number 1.2.1]</p> <p><b>ToR c)</b> The final ToR aims to disperse the findings of the CEPHSTOCK project to the wider community. A CRR aimed manuscript is to a large degree compiled but actual production and presentation for publication requires additional work to be carried out and important decisions to be reached by a large number of CEPHSTOCK participants during 2007, since this was not possible during 2006 due to lack of meeting opportunities [Action Number 10.4].</p>
<b>RESOURCE REQUIREMENTS:</b>	WGCEPH, more than most ICES Working Groups, relies on participation from a wide range of scientists working outside the traditional government fisheries laboratories in ICES countries and has, indeed, benefited enormously over the last 10-15 years from the input of other scientists working often in universities where no funding is available for participation in ICES activities. This must be taken into account in the organisation of WGCEPH meetings. In particular, the opportunity to use project funding must be seized when they present themselves. Without this source of funding, the group must resort to meeting by correspondence and such has been the case for the past 3 years. New cooperative project proposals have been submitted to several funding agencies in order that much needed research can be continued.
<b>PARTICIPANTS:</b>	In addition to European Atlantic Scientists involved in CEPHSTOCK, input from scientists in the USA and Canada (where some cephalopod fisheries are routinely assessed and managed) is useful.
<b>SECRETARIAT FACILITIES:</b>	None
<b>FINANCIAL:</b>	None
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	Terms of Reference a) and b) are set up to provide ACOM with the information required to respond to requests for advice/information from NEAFC and EC DG Fish.
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	None
<b>LINKAGES TO OTHER ORGANISATIONS:</b>	None

2007/2/LRC15      The **Stock Identification Methods Working Group** [SIMWG] (Chair: S. Mariani, Ireland) work by correspondence in 2008 to:

- a) liaise with ICES working groups and study groups dealing with stock identification issues; providing technical reviews to expert groups and LRC; Specifically provide advice methods, analyses and procedures, on wide ranging shark species and demersal skates in the North Sea, Celtic Seas and Bay of

Biscay/Iberian eco-regions to WGEF, new MoU species to WGNEW, and herring west of the British Isles to HAWG;

- b) review and report on new advances in stock identification methods as they develop and new results that are relevant to ICES work;
- c) advise on the need for future meetings of the SIMWG, and prepare appropriate Terms of Reference if required;
- d) review the papers presented at Theme Session L at the 2007 ASC and make recommendations for future work;
- e) Building on past and present Expert Group requests for stock identification and state of the art in stock identification methods discuss the potential of establishing protocols and propose a first draft protocol.

SIMWG will report by 1 August 2008 for the attention of the Living Resources Committee and will also report on the progress at the 2008 Annual Science Conference.

### Supporting Information

<b>PRIORITY:</b>	Essential. Stock structure is a fundamental requirement before any assessment or modelling on a stock level can be contemplated. SIMWG liaises with ICES study groups and workings groups on stock identification issues and continues to review new methods as they develop.
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	Action Plan No 1 – Action 1.2.1: Understand and quantify stock structure of commercially and ecologically important species. [LRC] Stock structure and stock identification have been identified as part of the work programme of the Living Resources Committee and SIMWG continues to make progress on the development of its Stock Identification Methodology. This group has recently completed the publication of a book on methods and their application. It will now act by correspondence to maintain the highest levels of these methods. It will actively review the field in general, and the actions of particular relevant EG.
<b>RESOURCE REQUIREMENTS:</b>	Additional resources required are negligible.
<b>PARTICIPANTS:</b>	15
<b>SECRETARIAT FACILITIES:</b>	None
<b>FINANCIAL:</b>	No financial implications
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	ACOM
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	AGFM – Chairs of these two Working Groups are corresponding to ensure that there is no unnecessary overlap in their work. WGDEEP – Chairs will continue to liaise on stock identity and research recommendations for deep-sea resources. NWWG – Chairs will continue to liaise on stock identity and research recommendations for <i>Sebastes mentella</i> .
<b>LINKAGES TO OTHER ORGANIZATIONS</b>	There are no direct linkages to other organizations.

**2007/2/LRC16**      **The ICES/PICES/GLOBEC-SPACC Workshop on Changes in distribution and abundance of clupeiform small pelagic fish in relation to climate variability and global change [WKSPCLIM]** (Co-Chairs: J. Alheit,\* Germany, R. Voss,\* Germany; G. Kruse, USA (PICES)) will be established and will meet in Kiel, Germany, 3–7 November 2008 to:

- a) document changes in distribution, abundance, condition and phenology of clupeiform small pelagic fish;
- b) interpret these changes in the ecosystem context with a particular view to dynamics of plankton communities;
- c) identify where these changes can be linked to hydrodynamic and climatic changes.

WKSPCLIM will report by 8 December 2008 to the attention of the Living Resources Committee, the Oceanographic Committee and GLOBEC/SPACC.

### Supporting Information

<b>PRIORITY:</b>	The work of the Group is essential if ICES is to progress the understanding of the mechanisms driving changes in pelagic fish populations by connecting fish to the environmental and the ecosystem.
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	The WK addresses Goal 1 Understand the physical, chemical, and biological functioning of marine ecosystems, in particular action numbers 1.2.2 Changes in spatio-temporal distributions in relation with environmental change, 1.6 assess and predict impact of climate variability and 1.7 play an active role in collaborations between ICES and GLOBEC. This WG is also related to Goal 4 Advise on the sustainable use of living marine resources, in particular action number 4.11 Develop the scientific basis for an ecosystem approach to management.  The WK will further allow ICES to answer the OSPAR request on the impact of climate change on fish population dynamics and distributions
<b>RESOURCE REQUIREMENTS:</b>	No specific resource requirements beyond the need for members to prepare for and participate in the meeting.
<b>PARTICIPANTS:</b>	Participants would include scientists from WG of the LRC and OCC as well as from GLOBEC/SPACC.
<b>SECRETARIAT FACILITIES:</b>	None specific
<b>FINANCIAL:</b>	None specific
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	Link with ACOM through particular ToRs related to the Ospar request
<b>LINKAGES TO OTHER COMMITTEES OR GROUPS:</b>	Link with WGPBI and WGRP of the Oceanography Committee (link fish populations to meso-scale physical structures, use of hydrodynamics model outputs). Link with groups dealing with environmental and fisheries survey data.
<b>LINKAGES TO OTHER ORGANIZATIONS:</b>	This group will be proposed for approval by GLOBEC/SPACC steering committee

**2007/2/LRC17** The Working Group on Acoustic and Egg Surveys for Sardine and Anchovy in ICES Areas VIII and IX [WGACEGG]. (Chair: A. Uriarte\*, Spain) will meet in Nantes, France from the 24–28 November 2008 to:

#### Long-term Terms of Reference:

- f) plan, coordinate and review acoustic and egg surveys in ICES Areas VIII and IX and standardize analysis procedures;
- g) update on innovations on sampling and estimation methods for DEPM and acoustics;
- h) develop a framework to cross-validate and integrate egg production and acoustic methods for the estimation of Spawning stock biomass and its distribution;
- i) produce an annual synoptic overview of distribution, abundance and population structure of sardine and anchovy in relation to the pelagic ecosystem for ICES areas VIII and IXa;
- j) integrate biological/environmental information from surveys and additional sources to improve the understanding of the spatial distribution and dynamics of sardine and anchovy in relation to the pelagic ecosystem in ICES Areas VIII and IXa.

#### 2008 Terms of Reference:

- a) Produce and adopt a general grid to use in order to obtain a synoptic presentation of results from DEPM and acoustic surveys;

- b) Adopt a general data format for data submission to the WG grid database;
- c) Produce technical specifications for the development of a common database for acoustic data;
- d) Establish links with other WG and projects identified in 2007 WGACEGG meeting;
- e) Evaluate different procedures to obtain variance estimation for acoustic surveys;
- f) Provide first results on the intercalibration of Spanish and Portuguese acoustic surveys.

WGACEGG will report by 19 December 2008 for the attention of the Living Resources Committee.

### Supporting Information

<b>PRIORITY:</b>	The Group has high priority as it will be responsible for providing integrated advice for two major and depleted stocks (sardine and anchovy) in this area. These stocks are distributed across national boundaries. The most important part of its work will be to standardize, plan and analyse all the relevant surveys and to integrate these together to give the best possible advice to the WGMHSA for assessment purposes. It will also capitalise on the successful work of SGSBSA and of the EU project PELASSES.
<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:</b>	<p>ToR a) plan, coordinate and review acoustic and egg surveys in ICES Areas VIII and IX and standardize analysis procedures. Egg surveys for sardine and anchovy have been carried out since 1988 in Spain and Portugal, and since 1997 surveys were coordinated within different projects and the SGSBSA. A continuation of this planning and coordination, as well as analysis methodology standardization, will be carried out within WGACEGG. Also, attention will be paid to the coordination, planning and standardization of CUFES surveys through all VIII and IX ICES Areas. Planning and coordination of acoustic surveys in ICES Areas VIII and IX have been attempted within the EU project PELASSES. WGACEGG is expected to improve planning and coordination between Spanish (IEO, AZTI), Portuguese (IPIMAR) and France (IFREMER) acoustic surveys, as well as standardising methods and analysis procedures between these countries/institutes. [Action Numbers 1.11; 1.13].</p> <p>ToR b) update on innovations on sampling and estimation methods for DEPM and acoustics. Both newly developed DEPM and traditional egg production methods have been explored in SGSBSA, and associated robust and user-friendly software to perform egg production estimates is under development. Improvement on acoustic estimation methods are also routinely presented in WGACEGG, from the interim work carried out in each institute. WGACEGG will continue to support the work on methodological improvements, by validation and testing of each of the methods. [Action Number 1.10]</p> <p>ToR c) Develop a framework to cross-validate and integrate egg production and acoustic methods for the estimation of Spawning stock biomass and its distribution. Both egg production and acoustic methods allow estimation of Spawning stock biomass and stock distribution by using different assumptions and techniques. Cross-validation of these methods should be performed in a broad framework, allowing the comparison and validation of each method basic assumptions and identification of possible sources of discrepancy and its impact on the estimates. Also, building from the knowledge of differences and sources of uncertainty/bias in each of the methods, WGACEGG will explore the possibility of using both methods to obtain an integrated estimate of SSB [Action Numbers 1.2; 1.11; 1.13].</p>

<b>SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN (CONTINUED)</b>	<p>ToR d) produce an annual synoptic overview of distribution, abundance and population structure of sardine and anchovy in relation to the pelagic ecosystem for ICES areas VIII and IXa; WGACEGG will combine the results of each national survey to produce data at a regional scale, covering the area from the Strait of Gibraltar up to the English Channel. Within this framework, WGACEGG will provide an integrated synoptic view of the annual distribution and abundance of the sardine and anchovy population, which will be useful both for assessment purposes and for ecological studies.</p> <p>ToR f) integrate biological/environmental information from surveys and additional sources to improve the understanding of the spatial distribution and dynamics of sardine and anchovy in relation to the pelagic ecosystem in ICES Areas VIII and IXa.. Information obtained from the spatial structure of the sardine and anchovy communities, together with associated environmental information would be integrated, with the scope of improving the understanding of the pelagic community, using both sardine and anchovy as key species of this community. [Action Numbers 1.2; 4.11].</p>
<b>RESOURCE REQUIREMENTS:</b>	None
<b>PARTICIPANTS:</b>	20–25
<b>SECRETARIAT FACILITIES:</b>	None
<b>FINANCIAL:</b>	None
<b>LINKAGES TO ADVISORY COMMITTEES:</b>	ACOM
<b>LINKAGES TO OTHER COMMITTEES GROUPS:</b>	WGMHSA, WGLESP, WGFE, PGEGGS, WEGEGGS, FAST/FTFB
<b>LINKAGES TO OTHER ORGANIZATIONS:</b>	Other countries/institutions applying the DEPM, or carrying out integrated acoustic-egg surveys worldwide. Linkages with mediterranean small pelagic committees are also seek. Linkages with Northern Africa countries will be established based on EU cooperative projects. Participation in COST actions are also seek