

Resource Management Committee (RMC) Resolutions 2006

2006/2/RMC01 The **Study Group on Redfish Stocks [SGRS]** (Chair: C. Stransky, Germany) will meet in Murmansk, Russia, from 30 January – 1 February 2007 and in Hamburg, Germany, from 31 July – 2 August July 2007 to:

- a) plan the international trawl/acoustic survey of redfish to be carried out in the Irminger Sea and adjacent waters in June/July 2007 (January);
- b) prepare the report on the outcome of the 2007 survey (July).

SGRS will report by 15 March 2007 (January meeting) and 15 August 2007 (July meeting) for the attention of the Resource Management Committee, North Western Working Group, and ACFM.

Supporting Information

PRIORITY:	Essential.
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	<p>Action Plan Numbers: 1.8, 1.10, 1.11, 1.13 and 6.1</p> <p>SGRS (formerly PGRS) has been responsible for the planning of the international trawl/acoustic surveys of redfish in the Irminger Sea and adjacent waters since 1994 and corresponding reports on the survey results. The observed drastic changes in abundance estimates since 1994 and considerable changes in environmental conditions in recent years confirm the need of precise monitoring of the redfish in the distribution area.</p> <p>SGRS, however, repeatedly faced the problem of a large spacing between hydroacoustic survey tracks and between trawl hauls due to the large survey area (about 400,000 square nautical miles) that has to be covered with only three vessels currently participating in the survey. In order to reach a sufficient density of survey tracks and trawls, SGRS recommended (ICES CM 2005/D:03) that “as many vessels as possible (at least four) should participate to improve the quality of the derived estimates. Thus, the efforts directed at involving other nations in the survey should be continued.” Consequently, the potential countries were requested to consider a participation in the next redfish survey in June/July 2007.</p>
RELATION TO STRATEGIC PLAN:	Provide sound, credible, timely, peer-reviewed, and integrated scientific advice on fishery management and the protection of the marine environment in response to requests from regulatory commissions, Member Countries, and partner organisations.
RESOURCE REQUIREMENTS :	N/A
PARTICIPANTS :	<10 (incl. the cruise leaders of each vessel and the principle experts involved in abundance and biomass calculations)
SECRETARIAT FACILITIES:	N/A
FINANCIAL:	None
LINKAGES TO ADVISORY COMMITTEES:	ACFM
LINKAGES TO OTHER COMMITTEES OR GROUPS:	NWWG
LINKAGES TO OTHER ORGANISATIONS:	NAFO, NEAFC

2006/2/RMC02 The **Study Group on Risk Assessment and Management Advice** [SGRAMA] (Chair: Knut Korsbrekke, Norway) will meet in Cape Town, South Africa, from 5–9 February 2007 to:

- a) to review and report on available methodologies for risk assessment and frameworks for risk management within and outside the fisheries sector;
- b) on the basis of the review, start development of a framework and operational guidelines, for risk assessment and advice which includes considerations on risk management. Risk assessments should *inter alia* relate to conservation limits and targets for exploitation of fish stocks taking into consideration the ecosystem effects of fisheries and environmental variability and management considerations should relate both to the production of such assessments and institutional aspects of risk management decisions and implementation. The framework should link to the framework for management strategies developed by SGMAS with the scope of ultimately being integrated with these;
- c) consider and report on training needs and possible modalities for training to disseminate knowledge about risk assessments to members of ICES expert groups;
- d) outline the kind of relevant information that will be required for risk assessments.

SGRAMA will report by 1 March 2007 for the attention of the Resource Management, the Living Resources Committee as well as ACFM, ACE, ACME.

Supporting Information

PRIORITY:	The work is essential for ICES to progress in the development of its capacity to provide advice on fisheries and marine management which includes considerations of risk. Such evaluations are necessary to fulfil the requirements stipulated in the MOUs between ICES and Commissions
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	<p>[Action numbers 3.2, 3.4, 3.5, 3.12, 4.2, 4.3, 4.5, 4.11.2, 4.13, 4.15, 7.2]</p> <p>The SGRAMA report is a first step in establishing guidelines for production of risk assessments and inclusion of considerations of risk management in the advice.</p> <p>Risk assessment and risk management is an important field in several branches of science. The SGRAMA aims at drawing on the experience from other branches of science, and to include that experience in the development of risk assessment and risk management in fisheries science.</p> <p>The field covered by the SGRAMA is close to the fields of the SGMAS and WGFS. However, the scope of the SGRAMA is to focus on risk issues while that of SGMAS is in developing operational guide-lines to enable ICES to respond to managers' request for advice on development and evaluation of management strategies even at present, while the scope of WGFS is mostly on improving the understanding of how fisheries systems work. Clearly, the SGRAMA should draw on the insight provided by the SGMAS and WGFS. The outcomes of SGRAMA will eventually be incorporated in the guidelines for evaluation of management strategies under development by SGMAS.</p>

SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN CONTINUED:	<p>The SGRAMA started its work in 2006, with low attendance, and could only initiate the work on the ToRs. As these tasks require more than one meeting to complete, the ToRs are the same as for the first meeting.</p> <p>There is an offer to host the meeting in Cape Town. Referring to the guidelines for choice of meeting venue:</p> <p>It is imperative for the group to look beyond the ICES area, as well as including scientists from other fields than what is traditionally covered by ICES. In a communication for the General Secretary to the delegates, it was highlighted that 'The Study Group is in need of multidisciplinary participation both from within and outside the ICES'.</p> <p>South Africa has observer country status in ICES.</p> <p>holding the meeting in Cape Town will build a link to the strong scientific environment in the field in South Africa. The link is further strengthened by the chair having a sabbatical stay in Cape Town at the time of the meeting.</p> <p>So far, the group has only met at ICES headquarters.</p> <p>The cost of travelling to South Africa are not overwhelmingly higher than within the ICES area, and having the meeting in Cape Town should not imply extra costs for ICES.</p>
RESOURCE REQUIREMENTS	
PARTICIPANTS:	<p>Experts with qualifications regarding assessment and institutional aspects of risk assessment and management. Effort should be made to attract participants with experience in risk assessment and management outside the fisheries sector.</p>
SECRETARIAT FACILITIES:	<p>Production of report.</p>
FINANCIAL:	<p>No extra costs for ICES</p>
LINKAGES TO ADVISORY COMMITTEES:	<p>ACFM, ACE, ACME</p>
LINKAGES TO OTHER COMMITTEES OR GROUPS:	<p>RMC, WGFS, AMAWGC and Assessment WGs</p>
LINKAGES TO OTHER ORGANISATIONS:	<p>This work serves as a mechanism in fulfilment of the MOU with EC and fisheries commissions.</p> <p>There is similar work going on within ICCAT, NAFO, and NFMS. Co-ordination should be assured as a number of participants in EU-funded projects such as EASE, PKFM, TECTAC and FEMS are expected to participate.</p>

2006/2/RMC03 The **Study Group on Fisheries Induced Adaptive Change** [SGFIAC] (Co-Chairs: M. Heino*, Norway, U. Dieckmann*, Austria, A. Rijnsdorp*, The Netherlands) will be established and will meet in Lisbon, Portugal, from 26 February to 2 March 2007 to:

- a) assemble and review empirical evidence of fisheries-induced adaptive change and its consequences for conservation of biodiversity and sustainable exploitation of marine species, within an ecosystem context, including previous work from WGAGFM and WGECO;
- b) evaluate the impact of existing management measures and tools, such as minimum mesh and landing sizes, precautionary reference points and marine protected areas, effort regulations, on fisheries-induced adaptive change;

- c) develop appropriate scientific and methodological tools to monitor and respond appropriately to risk to biodiversity and sustainable exploitation posed by fisheries-induced adaptive change;
- d) relate consequences of fisheries-induced adaptive change to current management objectives and evaluate possible more specific objectives for managing fisheries-induced adaptive change.

SGFIAC will report by 15 March for the attention of RMC, ACFM and ACE.

Supporting Information

PRIORITY:	The activities of the Study Group will provide ICES with a basis for advice on whether and how the adaptive effects of fisheries need to be taken into account in future management. Such advice is needed in relation to the Precautionary Approach, the Ecosystem Approach, Biodiversity and Evaluation of Risk and Uncertainty. Consequently, these activities are considered to have a very high priority.
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	<p>Action Plan No: 2.5 (assess and evaluate the genetic consequences of human-induced selective factors)</p> <p>Term of Reference a)</p> <p>Several countries are conducting or have recently completed significant studies in this area and the subject would benefit from a review of progress and an evaluation of the results obtained.</p> <p>Term of Reference b)</p> <p>Managing fisheries-induced adaptive change is implicitly included in management objectives under precautionary approach as sustainable harvesting must be understood to include evolutionary sustainability. However, explicit attention on fisheries-induced change raises some new issues. For example, the World Summit on Sustainable Development (2002) stipulated that fish stocks shall be maintained or restored to levels that can produce the maximum sustainable yield by 2015, but MSY itself may be eroded because of fisheries-induced adaptive change. It is therefore important to assess the degree to which fisheries-induced adaptive changes are properly accounted for by the existing management objectives, and to what degree specific considerations are warranted.</p>

SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN CONTINUED:	<p>Term of Reference c) and d)</p> <p>Frame work is needed to evaluate which stocks are most at risk, what level of monitoring is needed, and how to respond where fisheries-induced adaptive changes are likely to have significant negative impacts. Where management measures to mitigate such changes are required, it is in our best interests that most cost-effective management measures are found.</p> <p>Term of Reference d)</p> <p>As this is a relatively new field, methods for observing and monitoring fisheries-induced as well as its consequences and evaluating possible management targets and thresholds are still under development.</p> <p>Timeframe: 2-3 years</p>
RESOURCE REQUIREMENTS:	No financial requirements for ICES. The research programmes which provide the main input to this group are already underway, and resources are already committed (see 'Participants' below). The additional resource required to undertake additional activities in the framework of this group is negligible.
PARTICIPANTS:	Ca. 15–20 participants. Closely related EC-funded projects <i>Fisheries-induced Adaptive Changes in Exploited Fish Stocks</i> (2005–2009) and <i>Fisheries-induced Evolution</i> (2007–2009) as well as <i>Marfish</i> project within EU Network of Excellence <i>Marine Biodiversity and Ecosystem Functioning</i> (2005–2009) will secure participation from both fisheries research institutes and universities.
SECRETARIAT FACILITIES:	None.
FINANCIAL:	No financial implications.
LINKAGES TO ADVISORY COMMITTEES:	ACFM, ACE
LINKAGES TO OTHER COMMITTEES OR GROUPS:	For management implications: Resource Management Committee (RMC), Living Resources Committee (LRC), Working Group on Fishery Systems (WGFS), possible follow-up group of Study Group on Management Strategies (SGMAS) For more fundamental aspects: WGAGFM
LINKAGES TO OTHER ORGANIZATIONS:	–

2006/2/RMC04 **The Working Group on Methods of Fish Stock Assessments [WGMG]**
(Chair: Coby Needle*, UK) will meet in Woods Hole, USA, from 13–22 March 2007 to:

- a) investigate further, and test, the sensitivities of stock assessment methods to known data problems with particular reference to the retrospective problem;
- b) operationalise methods to include discard data in stock assessments;
- c) review developments in fisheries-independent (e.g. survey-based) assessment tools;
- d) evaluate the current state of operational evaluation tools for fisheries management options;
- e) provide guidance on incorporation in assessments of estimates of variance in input data; and
- f) provide guidance to assessment Working Groups on the inclusion of variable weights and maturities in assessments, predictions and management simulations.

WGMG will report by 15 May 2007 for the attention of the Resource Management Committee and ACFM.

Supporting Information

PRIORITY:	The work of this group is essential for ICES to progress in the development of techniques of fish stock assessment and the evaluation of management strategies.
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	<p>The proposed ToRs are pertinent to current issues of concern within fisheries science and management. Considering each in turn:</p> <p>ToR a): Approaches for the correction of bias in stock assessments need to be further developed and implemented if reliable forecasts are to be produced in the future. This has a bearing on the development and evaluation of management strategies and harvest control rules. WGMG proposes that the group meets at the Northeast Fisheries Science Centre, NOAA, Woods Hole, USA where research is currently on-going to address this ToR.</p> <p>ToR b): Follow up of work last year, but also related to new data regulations where sampling will be by fleet and not by nation, and to work by the WKDRP.</p> <p>ToR c): Scientific approaches under the ToR a) will aim to address the catch data issue, and will attempt to reconstruct the missing catches so that the conventional approach to deliver advice (catch-based assessment and forecasts) can be maintained. An alternative approach is to ignore the catch data altogether and try to inform managers on the state of stocks based on information from surveys alone. This is the task assigned to the on-going EU-funded project FISBOAT. A work package in this project is specifically tasked to: Supply methods for analysing Fishery-Independent (F-I) stock assessment data to provide managers with relevant information about stocks and their exploitation; provide F-I assessment models; and provide parameter estimation procedures for these models. While it is anticipated that work from this project will be presented at the next meeting of WGMG, alternative approaches should also be solicited.</p> <p>ToR d): The EU-funded project EFIMAS is tasked with developing computer-based tools for the evaluation of fisheries management options and it is anticipated that work from this project will be presented at the next meeting of WGMG. The FLR software will be further evaluated and tested. The application of the WGMG “three-step” approach (outlined at the 2006 meeting) will be explored through case studies.</p> <p>ToR e): Variance estimates are provided for many input data, and more may come as the result of new data regulations. Current standard assessment methods do not allow for inclusion of such information.</p> <p>ToR f): This work was requested by WGSSDS, and triggered by the availability of annual weight and maturity data through the EU Data Collection regulation.</p> <p>Recent meetings by WGMG have lasted 5 days. In such short meetings, it is not possible to go beyond presenting and discussing intersessional work. Hence, recent meetings of the WGMG have to a large extent been restricted to serving as fora for presenting ongoing work. A considerably longer meeting as proposed would allow exploring methods and approaching problems in depth, thus enabling the group to specifically address its terms of reference through work of its own.</p>
RESOURCE REQUIREMENTS:	None.
PARTICIPANTS:	Group is well-manned by the correct people but would benefit from new members participating in the work of the group. Input from observer countries would be desirable.
SECRETARIAT FACILITIES:	Meeting facilities, production of report.
FINANCIAL:	None.
LINKAGES TO ADVISORY COMMITTEES:	ACFM has strongly supported the work of this group and has worked actively in formulating the ToRs for recent meetings. WGMG will report to ACFM at its autumn meeting in 2007.
LINKAGES TO OTHER COMMITTEES OR GROUPS:	WGMG will report to the Resource Management Committee at the ICES ASC in 2007. There will also be links to the Fisheries Technology Committee.
LINKAGES TO OTHER ORGANIZATIONS:	There is similar work going on within ICCAT and NAFO. Co-ordination should be assured.

2006/2/RMC05 The **International Bottom Trawl Survey Working Group** [IBTSWG] (Chair: R. ter Hofstede*, The Netherlands) will meet in Sète, France (to be confirmed), from 27–30 March 2007 to:

- a) coordinate and plan North Sea and North-Eastern Atlantic surveys for the next twelve months including appropriate field sampling in accordance to the EU Data Collection Regulation;
- b) further develop the standard reporting format for the most recent surveys for species of interest to assessment WG according to their response;
- c) further develop standardization of all sampling strategies, computation of indices and estimation of precision;
- d) review the findings from the SGSTS in respect to issues relevant to IBTS and respond;
- e) review progress made in the updated DATRAS database and data access policy;
- f) complete the shapefiles and supporting information for the agreed strata in the Eastern Atlantic;
- g) coordinate the production and dissemination of identification keys for North Sea, and southern and western IBTS groundfish surveys;
- h) consider the feasibility of collecting additional data in the surveys, in particular observations of mammals and birds, and the use of CUFES.

IBTSWG will report by 15 April 2007 for the attention of the Resource Management Committee and ACFM.

Supporting Information

PRIORITY:	Essential.
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	<p>The general need for monitoring fish abundance using surveys is evident in relation to fish stock assessments and in biodiversity studies. The meeting is based on the following needs:</p> <p>ToR a) This is the main stay of the work of the Working Group and since the 2002 Dublin meeting participants have made more effort in the actual Working Group to coordinate and plan future surveys. Co-ordination of North Sea Surveys is fairly standard with most effort directed towards rationalising biological collection. However, the western and southern surveys still need considerable input from the appropriate participants, as many surveys are relatively new. (Action Plan 1.8, 1.11)</p>

SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN CONTINUED:	<p>ToR b) A first version of a reporting format has been used in the 2006 WG report. After feed back from Assessment WG, the reporting format will be updated to answer in the most proper way to expectations. (Action Plan 1.11)</p> <p>ToR c) In order to achieve the required level of quality in survey data, there is an urgent demand for clear international protocols on sampling strategies and data analysis. The surveys coordinated by the WG have different sampling strategies and there is a need to define the best adapted methods for computing indices and estimating precision. (Action Plan 1.11)</p> <p>ToR d) Aspects of quality in survey design, sampling strategies and analysis of data are of prime importance for IBTSWG. Therefore outcome from dedicated Study Groups and Workshops have to be considered within the IBTSWG. (Action Plan 1.10, 1.11, 1.13).</p> <p>ToR e) A new data access policy has been proposed and IBTS WG has commented on it in 2006. There will also be a new DATRAS version in development and IBTSWG will comment on the outputs of this new version. (Action Plan 1.11, 6.1.)</p> <p>ToR f) It has been agreed that supporting information for the stratification and shape files should be provided. It was also agreed that this process would be extended to the North and South and should therefore cover all Eastern Atlantic. (Action Plan 1.11).</p> <p>ToR g) Maintaining a high level of expertise in fish identification is a high priority. A way to achieve this is through development of adapted tools to be used by the scientific staff onboard the vessels. (Action Plan 1.10).</p> <p>ToR h) There is a growing interest in collecting additional data underway in the surveys coordinated by the IBTSWG. This is not necessarily without problems, and the WG should consider to what extent such data can be collected, without corrupting the prime purpose of the surveys.</p>
RESOURCE REQUIREMENTS:	<p>A four day IBTS meeting. Pre-prepared documents from members. Six days Chair's time to edit. It is estimated that each ToR will require 4 hours pre-preparation</p>
PARTICIPANTS:	<p>All members will participate in all ToRs, although leads for each ToR have still to be allocated. It would be highly beneficial to have the person responsible for the ICES DATRAS (Lena Larsen) participating for some days.</p>
SECRETARIAT FACILITIES:	<p>None</p>
FINANCIAL:	<p>None</p>
LINKAGES TO ADVISORY COMMITTEES:	<p>ACFM</p>
LINKAGES TO OTHER COMMITTEES OR GROUPS:	<p>WGFTFB ToR d) Cooperation with PGCCDBS and SGSTS</p>
LINKAGES TO OTHER ORGANIZATIONS:	<p>IOC, GOOS</p>

2006/2/RMC06 The Working Group on Fishery Systems [WGFS] (Chair: Doug Wilson, Denmark) will meet at ICES Headquarters from 1–3 May 2007 to:

- a) review and report outcomes of research on European fisheries management systems which is of relevance to ICES' role as provider of advice;
- b) review and report the literature on best practices in the provision of scientific advice in other policy areas that may contain lessons for ICES. Initial work on this subject is being carried out in the SAFMAMS project;

- c) review and report on the applicability to fisheries systems analysis of three methodologies currently being used in the comparative evaluation of fisheries and other natural resource systems: the Institutional Analysis and Development Framework being used by the International Forestry Resources and Institutions (*IFRI*) programme to comparing forestry management strategies; the fuzzy sets approach being used in the CEVIS project; and, the Bayesian approaches being used in the PRONE project;
- d) finalize the table of contents for the cooperative research report on the North Sea cod management evaluation and to develop a process for completing that research report.

WGFS will report by 31 May 2007 for the attention of the Resource Management Committee and ACFM.

Supporting Information

PRIORITY:	The work of the WGFS is essential if ICES is to contribute to the development of fisheries management strategies that take the ecological and social systems in which these strategies must be effective fully into account.
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	<p>The WGFS met in 2000, 2001, 2003, 2004 and 2006 to develop a framework for case study analysis and has identified European and North American studies. Through these case studies, the group generated a number of papers taking a systems perspective that were presented at the ICES Symposium on Management Strategies in June, 2006 and are to be collated into a cooperative research report in 2007.</p> <p>The key role for the WGFS is to integrate across disciplines to develop analytical and investigative methods/approaches for studying fisheries systems. Given that the ultimate aim is sustainability, the group's task is to describe the relative importance of fisheries system components and the interplay of bio-ecological, economic, social and governance processes in achieving sustainability through ecosystem-based approaches to fisheries.</p> <p>The benefit for ICES is as an aid to develop strategies for improving fisheries management over the long term. This requires understanding how fisheries systems change, what are the main drivers of change, how these drivers are respond to policy changes, and how changes affect the relationship between system components.</p> <p>Within this overall fisheries systems approach, the key focus will be on ICES' own role within these broader systems. This means understanding the roles of fisheries scientists in management, the needs of the various users of scientific advice, the most useful forms for that advice, and other potential ways that scientists to the sustainable use of aquatic resources.</p>

SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN CONTINUED:	<p>In general, the remit of this group addresses Action Number 4.13 and 5.3.</p> <p>The analytic study of fisheries systems requires the development of methodologies that are able to take system component linkages into account and reveal the conditions that allow sustainability. These methodologies must appropriately combine quantitative and qualitative methodologies to measure, describe and compare existing fisheries systems in order to rigorously catalogue the lessons and best practices they contain. This kind of research involves the development of both methodologies and databases. Such approaches are beginning to be applied to fisheries but are more developed in other resource areas and in other science-based policy areas.</p> <p>Having completed the pilot case studies of cod management and produced a number of papers from rather different perspectives, the next goal will be to develop cross-case methods and to begin to design appropriate databases of fisheries systems with a particular emphasis on the role of knowledge within these systems.</p> <p>One initial priority will be to assess alternative approaches to case comparison for fisheries. This will include reviewing how this work has been carried out in other resource management areas.</p> <p>A second initial priority will be to assess the alternatives ways that scientific advice is used to support science-based policy.</p>
RESOURCE REQUIREMENTS:	Secretariat support for meeting.
PARTICIPANTS:	These include scientists working with fisheries management from economic, social, ecological and biological perspectives. Participation is from ICES countries and scientists both from disciplines and scientific circles not traditionally represented at ICES.
SECRETARIAT FACILITIES:	No additional software/hardware is anticipated beyond that which is currently available.
FINANCIAL:	None
LINKAGES TO ADVISORY COMMITTEES:	It is a central element of the work of ACFM to maintain awareness of how fisheries management systems work and to learn from best practices. WGFS produces the input to ACFM for this.
LINKAGES TO OTHER COMMITTEES OR GROUPS:	Close links to SGMAS. Methodological issues are within the mandate of WGFS, but fish stock assessment methods are referred to WGMG.
LINKAGES TO OTHER ORGANISATIONS	ICES will seek to widen participation for this group, including contact with relevant academic and inter-governmental organisations (including IASC, FAO, OECD and IIFET).

2006/2/RMC07 The **Planning Group on Northeast Atlantic Pelagic Ecosystem Surveys [PGNAPES]** (Chair: Alexander Krysov, Russian Federation) will meet in Amsterdam, The Netherlands, from 14–17 August 2007 to:

- a) critically evaluate the surveys carried out in 2007 in respect of their utility as indicators of trends in the stocks, both in terms of stock migrations and accuracy of stock estimates in relation to the stock – environment interactions;
- b) review the 2007 survey data and provide the following data for the Northern Pelagic and Blue Whiting Working Group:
 - i) stock indices of blue whiting and Norwegian spring-spawning herring.
 - ii) zooplankton biomass for making short-term projection of herring growth.
 - iii) hydrographic and zooplankton conditions for ecological considerations.
 - iv) aerial distribution of such pelagic species as mackerel.
- c) describe the migration pattern of the Norwegian spring-spawning herring and blue whiting stocks in 2007 on the basis of biological and environmental data;

- d) plan and coordinate the surveys on the pelagic resources and the environment in the North-East Atlantic in 2008 including the following:
- i) the international acoustic survey covering the main spawning grounds of blue whiting in March-April 2008.
 - ii) the international coordinated survey on Norwegian spring-spawning herring, blue whiting and environmental data in May-June 2008.
 - iii) Russian investigations on pelagic fish and the environment in May-July 2008.
 - iv) Icelandic investigations on pelagic fish and the environment in June-July 2008.
 - v) Norwegian investigation on pelagic fish and the environment in July-August 2008.

PGNAPES will report by 1 September 2007 for the attention of the Resource Management and the Living Resource Committees, as well as ACFM and ACE.

Supporting Information

PRIORITY:	The coordination of the surveys has strongly enhanced the possibility to assess abundance and provide essential input to the assessment process of two of the main pelagic species in the Northeast Atlantic and describes their general biology and behaviour in relation to the physical and biological environment.
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	<p>The Planning Group is a potential meeting place for inter-disciplinary discussion and considerations on ecosystem approach to management of fisheries.</p> <p>ToR a) Two international and some national surveys with coordinated by PGNAPES. The Planning Group describes the procedures for acoustic, hydrographic, plankton, and fish sampling to be used during the surveys.</p> <p>ToR b) The abundance indexes estimates of Norwegian Spring Spawning Herring and Blue Whiting produced from surveys are used in ICES Northern Pelagic and Blue Whiting Fishery Working Group (NPBWWG) in assessment. The collection of environmental data improves the basis for ecosystem modelling of the Northeast Atlantic.</p> <p>ToR c) The Planning Group describe the migrations of the stocks and consider possible stock – environment interactions.</p> <p>ToR d) The Planning Group contributes significantly to improving abundance surveys essential for fish stock assessment of herring and blue whiting and improving the collection of data for ecosystem modelling of the Northeast Atlantic. The Planning Group will identify existing procedures to ensure that the sampling gear and any instrumentation used to monitor its performance are constructed, maintained and used in a consistent and standardized manner. Where necessary, procedures and protocols should be established for intercalibration to take into account platform and sampling tools-survey gear differences.</p> <p>In general, the remit of this group addresses Action Numbers 1.2.2, 1.3 and 1.11.</p>

RESOURCE REQUIREMENTS :	None
PARTICIPANTS :	15
SECRETARIAT FACILITIES:	Standard report production.
FINANCIAL:	None
LINKAGES TO ADVISORY COMMITTEES:	ACFM, ACE
LINKAGES TO OTHER COMMITTEES OR GROUPS:	WGNPBW, WGMHSA and SGBYSAL
LINKAGES TO OTHER ORGANISATIONS:	None

2006/2/RMC08 The **Study Group on Multispecies Assessments in the North Sea** [SGMSNS] will be renamed the **Working Group on Multispecies Assessment Methods** [WGSAM] (Co-Chairs: John Pinnegar* UK and Bjarte Bogstad* Norway) and will meet at AZTI, San Sebastian, Spain from 15–19 October 2007 to:

- a) examine the status of multispecies modelling efforts throughout the ICES region, i.e. Bay of Biscay, Mediterranean Sea, Iceland, Barents Sea, Baltic Sea, North Sea (based on results from EU-funded BECAUSE), and consider the feasibility of using the various methods across regions;
- b) evaluate region-specific stomach sampling survey designs and preparation of guidelines and operation manuals;
- c) investigate the potential implications of a decline in forage fish for dependent wildlife, and the implications for prey stocks of recovering fish predator populations;
- d) investigate the relation between weight at age in the predator species and the abundance of prey species;
- e) compare forward projections from ecosystem models such as Ecopath with Ecosim (EwE) and multispecies assessment models.

WGSAM will report by 1 December 2007 for the attention of the Resource Management Committee and ACFM.

Supporting information

PRIORITY:	Multispecies assessment modelling is essential for the development of viable long-term management strategies
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	<p>Links to action points: 1.1, 1.2, 3.3, 3.5, 3.6, 4.1, 4.2, 4.11, 4.15</p> <p>The increased emphasis on ecosystem management, and the move away from advising on single stocks in isolation, necessitate considering interactions between fish stocks and between fish stocks and the ecosystems which they are part of.</p> <p>Historically the ICES multispecies working and study groups have acted as a useful conduit within the ICES system, drawing together advice and quantitative outputs from many different assessment working groups. The multispecies work within ICES has so far to a large extent focused on predator-prey interactions in the North Sea. Multispecies interactions, both as predator-prey interactions and other interactions have been subject to studies and modelling in other parts of the ICES area as well, including the Bay of Biscay, Celtic Sea, Iceland and Barents Sea.</p>

SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN CONTINUED:	<p>Hence a pan-regional ICES working-group, accommodating these activities and including sea areas where multispecies development has been less linked to ICES would seem particularly timely and useful. Likewise, the WGSAM will include the responsibilities of the current SGMAB.</p> <p>The ToRs also reflect the need to broaden the scope for multispecies work with respect to methods, in particular such that can utilize less disaggregated data than those used for the North Sea at present.</p> <p>Multispecies considerations need stomach data, which are costly and logistically challenging. Sampling such data varies between regions, and one task for the group would be to assemble and distribute the insight gained by various sampling strategies, aiming at preparing guidelines.</p> <p>In the advisory context, the recent focus has shifted towards medium and long term strategies. Longer term predictions require better understanding about the ecological processes underpinning fisheries production and about how different fish stocks might interact and/or respond to management actions or changing ecosystems. Previous work by the Study Group on Multispecies Assessment in the North Sea (SGMSNS) its predecessor the Multispecies Assessment Working Group (MAWG) as well as multispecies work in the Baltic has demonstrated that the magnitude of predation mortality can be of the same order as removals through fishing. Furthermore, multispecies mid – long term projections often differ substantially from single-species projections. An imminent need is for assessment WGs to account for changes in weight and maturity in predator species as a result of changes in the availability of prey. ToR d addresses this problem.</p> <p>The previous SGMSNS is now extended and merged with the SGMAB to a Working Group on Multispecies Assessment Methods (WGSAM), to provide insight on: (i) potential recovery of stocks; (ii) the concept of maximum-sustainable yield and precautionary reference points within a multispecies context; (iii) the impact of changing prey populations on dependent wildlife species; (iv) the potential ecological impact of emergent species and/or long-term change in food webs; (v) the potential food-web implications of different management actions, including spatial closures, as well as needs and standards for stomach sampling.</p>
RESOURCE REQUIREMENTS:	<p>–</p>
PARTICIPANTS:	<p>Approx 25. Expertise in ecosystem, modelling and fish stock assessment from across the whole ICES region.</p>
SECRETARIAT FACILITIES:	<p>None</p>
FINANCIAL:	<p>No financial implications</p>
LINKAGE TO ADVISORY COMMITTEES:	<p>ACE, ACFM</p>
LINKAGE TO OTHER COMITTES OR GROUPS:	<p>AMAWGC, WGRED, WGEKO, SGMAS, WKEFA, most assessment WGs</p>
LINKAGES TO OTHER ORGANISATIONS:	<p>–</p>

As SGASAM will not meet until 27 November 2006, the group has not been able to put forward a new set of draft resolutions for Council approval. In line with last year, ConC suggests that ConC be given the authority to adopt the Terms of Reference during their mid-term meeting on behalf of the Council. Most recent **SGASAM ToRs**:

2006/2/RMC09 The Study Group on Age-length Structured Assessment Models [SGASAM] (Chair: Helen Dobby, UK) will meet at ICES Headquarters from 27 November – 1 December 2006 to:

- a) provide a forum for dissemination of information regarding developments in methodologies and applications of length- and age-length structured models in ICES areas and elsewhere;
- b) implement improved process-based models for predation, growth, maturation, fecundity and condition in age-length structured model frameworks;
- c) compare the performance of models with different process-based sub-models and/or different levels of complexity, and use and develop formal statistical methods to conduct these comparisons;
- d) evaluate the use of age-length structured models for the assessment of stocks for which age-disaggregated data are sparse or unreliable (e.g. *Nephrops*, elasmobranchs, hake, anglerfish redfish);
- e) investigate the utility of age-length structured models for investigating the effects of potential management measures (e.g. technical measures such as mesh size changes).

SGASAM will report by 31 December 2006 for the attention of the Resource Management Committee.

2006/2/RMC10 The **Workshop on Taxonomic Quality Issues in the DATRAS Database** [WKTQD] (Chair: Niels Daan*, The Netherlands) will meet at ICES Headquarters from 23–25 January 2007 to:

- a) Identify and correct taxonomic mis-identifications and input errors in DATRAS;
- b) Develop of protocols for ensuring the appropriate treatment of data reported at higher taxonomic levels;
- c) Develop improved protocols to ensure that species identification in trawl surveys is appropriate for fish community studies, including the development of photo-ID keys for nations participating in surveys;
- d) Develop protocols for (i) improving quality control during the submission of data to DATRAS and (ii) the future checking and quality assurance of DATRAS data.

WKTQD will report by 1 April 2007 for the attention of the Resource Management and the Living Resources Committee.

Supporting Information

PRIORITY:	Quality control of the ICES data base is of course of the highest priority, because these data are intensively used for formulating advice on fisheries management, marine ecosystems and the marine environment. Because errors have been spotted in DATRAS, addressing these is urgently required.
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	Links to action points: 1.1, 1.2, 1.6, 1.7, 1.8, 1.10, 1.11, 2.2, 3.2, 3.16, 4.5, 4.6, 4.10, 4.12, 6.4. In order to further develop the ecosystem approach to fisheries management, the broader effects of human activities on marine ecosystems are of great scientific and management interest. In this context, an understanding of changes in fish communities in response to exploitation or climate change is warranted. Survey data represent the most important information for evaluating spatial and temporal patterns in fish communities. However, most biodiversity indices are extremely sensitive to mis-identification of species. Recent studies indicate that major problems exist for quite a number of species reported by countries participating in the IBTS. Therefore, the present DATRAS data base can not be used for a reliable evaluation.
RESOURCE REQUIREMENTS :	Secretarial support.
PARTICIPANTS :	Taxonomists with expert knowledge of fish species and their distribution in the North-eastern Atlantic and adjacent seas, survey scientists and field ecologists participating in the IBTS and other surveys, and database experts to update potential errors and catalogue corrections are invited to participate in the workshop. We expect at least one representative from each nation participating in these surveys (15-20 participants).
SECRETARIAT FACILITIES:	Access to DATRAS
FINANCIAL:	No financial implications
LINKAGES TO ADVISORY COMMITTEES:	ACE, ACFM
LINKAGES TO OTHER COMMITTEES OR GROUPS:	LRC, WGFE, IBTSWG, WGBEAM
LINKAGES TO OTHER ORGANISATIONS:	–

2006/2/RMC11 A **Workshop on the use of FLR for fish stock assessments** [WKFLR] (Co-Chairs: R. Scott*, UK; and J.J. Poos*, Netherlands) will be held at ICES Headquarters, Copenhagen, from 29 January to 2 February 2007 to:

- a) teach a course on the use of the Fisheries Library in R (FLR) in stock assessment working groups covering evaluation of data consistency, estimation of the state of a stock, projection of stock status, uncertainty evaluation and risk assessment.

Participants will each pay a contribution of DKK 2000 towards the running expenses of the Workshop.

WKFLR will report by 29 February 2007 for the attention of the Resource Management and Living Resources Committees, and ACFM.

Supporting Information

PRIORITY:	In order to maintain and improve the quality of ICES advice, continual education in new and modern modelling tools that take into account new scientific ideas is necessary. The training undertaken in this Workshop is essential for ICES to assure the quality of the ICES advisory function and of its fish stock assessments in the longer term.
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	<p>Action Plan Numbers 4.10 and 6.7.3.</p> <p>A series of courses in fish stock assessment was started in 2002 as WKCFAT, with teaching principles and practice of XSA and ICA, followed by the WKAFAT with a somewhat broader scope, which was conducted in 2004, 2005 and 2006, but is not planned for 2007. Plans for teaching within ICES are under development and it is becoming increasingly evident that a range of courses at different levels is necessary to fully cover the needs for expertise in the ICES community, including courses on special topics like this one.</p> <p>FLR is a framework for simulating and analyzing data and management regimes with a variety of methods. It has been developed over several years, and is increasingly being used by assessment working groups. There is a strong need to further distribute the insight in using this tool, in particular to the assessment working group environment.</p> <p>The workshop on the use of FLR in stock assessment intends to concentrate on how FLR can be made operational in a stock assessment working group, focusing on the tools for exploratory data analysis, stock assessments, and stock forecasting within the framework. The course will be given as a combination of lectures and practical exercises using FLR. The course will be developed on a series of WiKi webpages that will remain available after the course has been completed. .</p> <p>The course will require some previous insight in fish stock assessment, e.g. through experience from assessment working groups, and intends to give the participants a broader and deeper insight in the field. Some experience with R is also necessary. The course is not intended as a first introduction to neither R nor to analytical assessment.</p>
RESOURCE REQUIREMENTS	Secretarial support.

PARTICIPANTS:	<p>1) The course will be set up for at maximum 25 participants.</p> <p>2) Each member and observer country can announce at most 5 participants. The order in which they are presented should indicate the priority of the country. These participants should be announced before 8 December 2006.</p> <p>3) Each member country will have one participant guaranteed.</p> <p>4) Any left-over places (at least 5) will be distributed among members of assessment WGs that are using or going to use FLR in their routine work. If it is not possible to accommodate all participants, then the Chair of RMC, together with the Co-Chairs, will establish a priority list. In their judgment they will consider the involvement with ICES fish stock assessment of the participants as the prime criteria.</p> <p>5) The Secretariat will announce participation by 15 December 2006.</p> <p>6) An indication of the ICES Stock Assessment Working Group in which the participant will take part after training should be provided, as well as a brief outline of previous assessment experience.</p>
SECRETARIAT FACILITIES:	–
FINANCIAL:	Funds are required from outside. Participants will each pay a contribution of DKK 2000 towards the running expenses of the Workshop.
LINKAGES TO ADVISORY COMMITTEES:	ACFM
LINKAGES TO OTHER COMMITTEES OR GROUPS:	<p>All Stock Assessment Working Groups parented by ACFM.</p> <p>The course material will be accessible on the ICES website after the course.</p>
LINKAGES TO OTHER ORGANISATIONS:	There is similar work going on within ICCAT and NAFO.