

FTC Resolutions 2007

2007/2/FTC01 **The Study Group on the Development of Fish Pots for Commercial Fisheries and Survey Purposes [SGPOT]** (Chair: B. Thomsen, Faroe Islands) will meet in Tórshavn, Faroe Islands, from 19–20 April 2008 to:

- a) complete a review of the current use of fish pots and provide a global overview of commercial fisheries and assessment surveys using these gears;
- b) more specifically identify fundamental research needs on fish behaviour in order to improve catching efficiency and assessment use of pots, in particular:
 - i) development of methodology for describing fish behaviour relevant for the capture and escape process.
 - ii) reactions to different stimuli, including bait attraction, in the far and near field.
 - iii) efficiency of pot and trap entrances, and
 - iv) behavioural variation due to biological status and environmental conditions.
- c) suggest specific behavioural experiments to be conducted jointly between institutes;
- d) make recommendations for improving the mechanical design and construction of pots, with considerations given to ecosystem effects such as ghost fishing and other unaccounted fishing mortality, with the specific aim of improving catch efficiency and their utility as survey gear, including drafting recommended consensus terminology for parts of a fish pot;
- e) evaluate conflicts between pots and other fixed and mobile gears;
- f) develop an outline for writing a Cooperative Research Report.

SGPOT will report by 31 May 2008 to the attention of the Fisheries Technology Committee.

Supporting Information

PRIORITY:	The current activities of this Group will monitor and encourage current ongoing work in several countries, facilitate communication of results and lead ICES into improved techniques for surveying marine living resources. The work of this group is the development of a fishing gear that has many environmental benefits and will contribute to sustainable fishing. Consequently, these activities are considered to have a high priority.
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	The group's work is of relevance to the ICES Action Plan 1.13, 3.16, 3.17 and 3.18. Several research milieus are conducting significant studies in the development of fish pots development both for commercial use and for survey purposes. The study group is working towards an ICES CRR providing comprehensive review of state-of-the-art and further research needs.
RESOURCE REQUIREMENTS:	The research programmes which provide the main input to this group are ongoing, and resources are already committed.
PARTICIPANTS:	The Group is normally attended by some 20–25 members.
SECRETARIAT FACILITIES:	None.
FINANCIAL:	No financial implications.
LINKAGES TO ADVISORY COMMITTEES:	There are no obvious direct linkages with the advisory committees.
LINKAGES TO OTHER COMMITTEES OR GROUPS:	There is a close working relationship with WGFTFB
LINKAGES TO OTHER ORGANIZATIONS:	

2007/2/FTC02 The **ICES/FAO Working Group on Fishing Technology and Fish Behaviour** [WGFTFB] (Chair: Dominic Rihan, Ireland) will meet in Tórshavn, Faroe Islands, from 21–25 April 2008 to:

Topics

- a) The Topic Group on “Application of fish behaviour for species separation in demersal fish trawls” will continue to work by correspondence following an agreed Action Plan timetable and report to the WGFTFB in 2008 to:
- Identify recent behavioural and gear research into the separation of groundfish species in demersal trawl gears;
 - Identify basic principles, strategies and effectiveness of groundfish species separation techniques such as separator panels, grids and footrope modifications.

Conveners: Pingguo He, (USA) and Mike Pol (USA)

- b) Term of Reference on “Incorporation of Fishing Technology Issues/Expertise into Management Advice.”

Based on the questionnaire exercise carried out in 2005/06 and 2006/07 into developments in fleet dynamics etc, WGFTFB recommends that the topic group continue to carry out this survey on an annual basis, taking account recommendations received from WGSSDS.

Conveners: Dave Reid, FRS, UK, Norman Graham, MI, Ireland, Dominic Rihan, BIM, Ireland

- c) A WGFTFB topic group of experts will be formed to consider the draft ICES Static Gear Manual.

The group will have the following ToRs:

- Review the current draft of the Static Gear Manual;
- Review available literature on the measurement of selectivity of all Static Gears and identify gaps in the knowledge; and
- Agree a structure for the completion of the manual and identify a drafting committee to complete this task.

Conveners: Andy Revill, CEFAS, UK and Rene Holst, DIFRES, Denmark

- d) A WGFTFB topic group of experts will be formed with the following ToRs:
- Identify fisheries where technical mitigation measures have been introduced to reduce the bycatch of protected species; and
 - Review the efficacy of these technical mitigation measures introduced to reduce the bycatch of protected species such as small cetaceans or turtles.

Conveners: Alessandro Lucchetti, ISMAR-CNR, Italy, Antonello Sala, ISMAR-CNR, Italy and Dominic Rihan, BIM, Ireland.

- e) A WGFTFB topic group of experts will work by correspondence to address the following ToR from WGEF:
- Provide more details on the bycatch of rays in outrigger trawls and
 - Review temporal changes in the fishing patterns of high seas pelagic fisheries taking pelagic sharks.
- f) A WGFTFB ad hoc group will work by correspondence and meet at WGFTFB meeting in April 2008 to address the following Tor's received from NIPAG & STACREC:
- To determine whether twin shrimp trawls (e.g. number of meshes in circumference) are different from single trawls. This would include investigations of the use of twin and triple trawls in other fisheries as well,

for example Greenland halibut directed fisheries, where their deployment may be used to improve catch rate rather than catch quality.

- To study the efficiency of twin trawls and determine how best to represent the effort of these trawls for management purposes.

g) A WGFTFB topic group of experts will be formed to address the following TOR received from WGEKO as part of the OSPAR Quality Status Report 2010:

- For each OSPAR region, select and succinctly describe one or more representative examples of gear modifications, which have resulted in changes to the ecosystem effects of these gears, including if possible a range of ecosystem components.

Conveners: Jochen Depestele, ILVO, Belgium

WGFTFB will report by 16 May 2008 for the attention of the Fisheries Technology Committee, but ToR (m) must be reported as soon as possible after the meeting for the attention of WGEKO.

Supporting Information

PRIORITY:	The current activities of this Group will lead ICES into issues related to the effectiveness of technical measures to change size selectivity and fishing mortality rates. Consequently these activities are considered to have a very high priority
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	<p>Action Item 3.16, 3.17, 3.18, 5.8, 5.11, 5.16, 6.3 (a) Action Item 3.2, 3.13, 4.11.3, 4.13, 5.11 (b) Action Item 3.16, 3.18, 4.13, 5.8, 5.12 (c) Action Item 3.2, 3.5, 3.16,3.17,4.13, 5.8 (d)</p> <p>Terms of Reference (a) Some groundfish species or stocks of these species are in low biomass, or overfished, while others are in healthy conditions. Efficient exploitation of healthy stocks while reducing or eliminating the capture of overfished stocks would provide industry and management means for sustainable utilization and management of the resource. Many members of WGFTFB have been involved in the area of research for many years. The topic group will concentrate on behaviour and species separation in commercial species. A summary of the status of knowledge and future directions in research and application would greatly benefit FTFB members and the fishing industry. The topic group will last for two years. The group will work by correspondence a report identifying current knowledge; information gaps and recommendations for future work will be presented at the 2008 WGFTFB meeting.</p> <p>Terms of Reference (b) Fisheries management bodies are often dependant on commercial catch per unit effort for stock assessment purposes and fishery/fleet based advice. Identification of changes in gear usage and fishing practices that affect fishing efficiency (technological creep) is important as this may result in biases in CPUE trends and need to be considered when using commercial catch data for tuning purposes. Recent changes in fishing practices are not generally evident from national data programmes due to time delays in collection, qualitative information relating to newly developing fisheries or changes in effort distribution can provide guidance in selecting suitable short-term forecasts and alert fisheries advisors to important changes in fleet dynamics. The WGSSDS very much appreciated the input from WGFTFB on technical issues, and is aware that WGFTFB is making attempts to provide more quantitative information on this issue. The working group reiterates that quantification is necessary in order to make better use of this information. This could be done in further dialogue between the WG chairs at the AMAWGC meeting. Other useful information that might be provided from WGFTFB, are gear selection curves for stocks with high discard rates. An overview of such curves by gear and area would allow the working group to compare gear and onboard crew selection profiles (See also section 4.2 and 4.5 for an example). The stocks under the remit of this working group with high discard rates are cod VIIe-k, haddock VIIb-k, whiting VIIe-k, plaice VIIfg and Nephrops FU20-22.</p> <p>Terms of Reference (c) The ICES Static Gear manual has a history extending back to 1988 when it was first suggested to formulate it. The current draft has described procedures for gillnet selectivity but procedures for longlines and pot selectivity are not well</p>

	<p>developed and this has meant that the manual has not been completed. Given the importance of static gears it is important that this manual is now finished. A topic group will be formed to work by correspondence and to meet and discuss and agreed an Action Plan timetable for completion of the Manual at the 2008 meeting of FTFB. The topic group will identify gaps in the knowledge and review available literature and recent developments pertaining to the measurement of the selectivity of all static gears.</p> <p>Terms of Reference (d) In recent years a growing amount of protected species (turtles, marine mammals, seabirds, and sharks) has been observed as bycatch in several fisheries where they didn't represent a problem before. The global warming and climate change are believed to have probably affected both habitats and biology of protected species; thus they have probably changed their traditional migratory route and it's possible to catch them in unusual areas. The incidental catch of protected species in fisheries directed to other species is a major source of mortality that has raised considerable concern over the last decade. In a number of fisheries mitigation measures have been introduced (e.g. new type of hooks, TEDS, acoustic deterrents etc.) and in many cases bycatch has been reduced but as yet little assessment has been made as to the effects of such devices. Using the methodology adopted by WGFTFB in 2007 to review the efficacy of technical measures in Crangon fisheries in the North Sea, taking several case studies the topic group will apply a similar methodology to assess the efficacy of mitigation measures introduced.</p> <p>Terms of Reference (e) Request from WGEF</p> <p>Terms of Reference (e) Request from NIPAG & STACREC: During deliberations of various shrimp stocks it was noted that twin trawls, and in some cases triple trawls, were being utilized for the improvement of catch quality rather than catch rate. It was pointed out that the physical attributes of some twin trawls (e.g. the number of meshes in the circumference) may not be too different from single trawls. NIPAG considered that further investigations should be conducted to address this as it could be very informative in interpreting standardized catch rate indices. This would include investigations of the use of twin and triple trawls in other fisheries as well, for example Greenland halibut directed fisheries, where their deployment may be used to improve catch rate rather than catch quality.</p> <p>During the NIPAG assessments in 2006 there was a discussion of the use of double trawls in the shrimp fishery and how best to represent the effort of these trials. They may not exert twice the effort as a single trawl. STACREC noted the importance of this issue and encouraged Contracting Parties to study the efficiency of twin shrimp trawls. STACREC noted that for bottom trawls one factor in standardizing effort is to count the number of meshes in the circumference of the trawl opening. Given the importance of estimates of effort to shrimp assessments STACREC recommended that the appropriate method to estimate effort from twin trawls (bottom and midwater) be referred to the ICES Fishing Technology Working Group.</p> <p>Terms of Reference (f) This information is required as a contribution to the ICES summary of the effects of fishing for the OSPAR QSR 2010. This will also act as a template for the provision of similar advice to WGECO in the future and will enhance linkages between the two WG's. The topic group will work by correspondence and met at the WGFTFB meeting in April to finalise a draft report for WGECO. Members of WGFTFB will then attend the WGECO meeting in May and work with WGECO to integrate this information into the QSR report 2010 for each OSPAR region. WGFTFB will report to WGECO by 30 April.</p>
RESOURCE REQUIREMENTS:	The research programmes that 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. Having overlaps with other meetings of expert groups of FTC increases efficiency and reduces travel costs.
PARTICIPANTS:	The Group is normally attended by some 50–70 scientists and invited experts.
SECRETARIAT FACILITIES:	None.
FINANCIAL:	None required. Having overlaps with other meetings of expert groups of FTC increases efficiency and reduces travel costs.

LINKAGES TO ADVISORY COMMITTEES:	The questions of bycatch reduction, fisheries information and survey standardization are of direct interest to ACFM and seabed damage is of direct interest to ACE.
LINKAGES TO OTHER COMMITTEES OR GROUPS:	This work is of direct relevance to the Working Group on Ecosystem Effects of Fisheries, WG on Fishery Systems, WG on International Bottom Trawl Surveys, Baltic Committee, Marine Habitat Committee, Resource Management Committee and Living Resources Committee and the Assessment Working Groups.
LINKAGES TO OTHER ORGANIZATIONS:	The work of this group is closely aligned with the FAO and also the EU Regional Advisory Councils. Links with GFCM have also been established.

2007/2/FTC03 The **Study Group on Unaccounted Fishing Mortality [SGUFM]** will be dissolved and will be re-established as the **Working Group on Quantifying All Fishing mortality [WGQAF]** (Chair: Phil MacMullen*, UK) and will meet in Tórshavn, Faroe Islands from 21–25 April 2008 to:

- a) maintain an overview of developments in the field and report to relevant ICES WGs (especially AMAWGC, WGFTFB, WGECO);
- b) prioritise and coordinate responses to issues arising from a), for example:
 - i) Slippage in NEA Mackerel fishery;
 - ii) Ghost fishing; and
 - iii) Inclusion of escape mortality estimates in stock assessment;
- c) advise on the need for workshops and meetings to address specific issues arising from a) and b); and
- d) liaise as necessary outside ICES in order to access data and influence events.

WGQAF will report by 1 June 2008 for the attention of the Fisheries Technology and Resource Management Committees.

Supporting Information

PRIORITY:	Stock assessment scientists, Chairs of assessment WGs and others have now accepted the significance of UFM. Flexible and effective liaison with them and other bodies will be substantially enhanced by the transition from SG to WG. This change and the continuing work related to UFM, or AFM are therefore considered to have a very high priority.
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	<p>Action Plan: 2.2, 3.2, 3.4, 3.6, 3.13, 3.16, 3.17, 3.18, 4.3, 4.13, 4.15, 5.11</p> <p>Term of Reference (a)</p> <p>The innovative work of SGUFM has resulted in a widespread acceptance of the need to identify and quantify all sources of fishing-related mortality. Previously unaccounted-for mortality sources may be greater than that arising from discarding in some fisheries. The new WG will provide the means by which assessment WGs and others can express their priorities and see these communicated to researchers working on fish survival and on related gear technology topics. The expectation is that fishing gear design, and particularly the design of technical conservation devices, can take account of our increasing understanding of previously unaccounted-for sources of mortality. It is anticipated that other sources of data will also become available, particularly commercial operators.</p> <p>The activities of this Group will lead ICES into a more holistic approach towards the management process, where:</p> <ul style="list-style-type: none"> • previously unaccounted mortality is factored into stock assessment, • management measures reflect a greater understanding of the impacts of fishing operations, • resource wastage can both be reduced and accounted for, and • data from researchers, gear technologists, vessel operators and the supply chain can be incorporated to generate a more global perspective on total fishing mortality.

RESOURCE REQUIREMENTS:	This WG will build on existing, nationally-funded programmes – any additional resource demands will be minimal.
PARTICIPANTS:	The WG will have a relatively small core group of participants, mainly from WGFTFB and draw ad hoc on others from assessment WGs, STECF, environmental NGOs, and commercial operators
SECRETARIAT FACILITIES:	None anticipated
FINANCIAL:	None: support from other organisations is anticipated as necessary
LINKAGES TO ADVISORY COMMITTEES:	ACOM
LINKAGES TO OTHER COMMITTEES OR GROUPS:	WGFTFB, AMAWGC, WGECCO, IBTS, SGMS
LINKAGES TO OTHER ORGANISATIONS:	This WG will link to a network of governmental and non-governmental organisations as appropriate in order to build up expertise and sources of data on all causes of fisheries-related mortality.

2007/2/FTC04 **The Study Group on Survey Trawl Standardisation [SGSTS]** (Chair: D. Reid, UK) will meet in Tórshavn, Faroe Islands, from 21–25 April 2008 to:

- a) present completed *ICES Cooperative Research Report* on Generic Survey Trawl Standardization;
- b) review draft *ICES Cooperative Research Report* on GOV standardization.

SGSTS will report by 30 June 2008 to the attention of the Fisheries Technology Committee.

Supporting Information

PRIORITY:	High: Bottom trawls provide fisheries independent data used in stock assessment of many commercial finfish and shellfish species worldwide. Minimizing survey variability is a key issue in developing accurate and reliable time series of abundance. In 2003 ICES mandated that all users of survey gears within ICES should develop a programme of standardization.
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	Action Plan: 1.125, 1.13.4, 4.10 –a), Action Plan: 1.13.1, 5.4, -b), Action Plan: 1.13.1, 5.4 -c), Action Plan: 1.13.1, 5.4. -d), Action Plan: 1.13.1, 5.4. -e), Action Plan: 6.3-f) There are continuing developments in trawl design and instrumentation available for surveys. Requirements for surveys may be changing such as the possibility of absolute abundance estimates being needed as a result of lower reliability of fishery dependent data. In recent years there have been criticisms of protocols associated with some surveys. As a result of all these developments, it is recognised that a review and possible development of a new programme of standardization and quality control are needed. For example, a Study Group (SGSTG) has recently identified the need for some changes to current practice in the IBTS Western Waters surveys. The study group are working towards an ICES CRR providing comprehensive guidelines for: <ul style="list-style-type: none"> • Trawl Gear specification (Generic and GOV) • Trawl monitoring • Gear Maintenance at sea • Training and Personnel issues • Changes and calibration • Ideal survey trawls and candidates
RESOURCE REQUIREMENTS:	No ICES resources
PARTICIPANTS:	Members of the WGFTFB, WGFAST, IBTSWG
SECRETARIAT FACILITIES:	None required above report compilation
FINANCIAL:	No financial implications.
LINKAGES TO ADVISORY COMMITTEES:	ACOM

LINKAGES TO OTHER COMMITTEES OR GROUPS:	WGFTFB, WGFASST, WGIBTS, all trawl survey and trawl based assessment groups
LINKAGES TO OTHER ORGANIZATIONS:	Links to FAO via WGFTFB

2007/2/FTC05 The **Study Group on Fisheries Optical Technologies** [SGFOT] (Chair: E. Tenningen, Norway) will meet in Bergen, Norway from 14–15 June 2008 to:

- a) Evaluate progress of the review of optical technology as agreed on the 2007 SGFOT meeting and finalise cooperative report structure;
- b) Review the outcome of the recent relevant conferences (e.g. Oceans 2007);
- c) Discuss recommendations for future work within optical technology to service the ecosystem approach for fisheries management.

SGFOT will report by 31 July 2008 for the attention of the Fisheries Technology Committee.

Supporting Information

PRIORITY:	The current activities of this Group will lead ICES into improved techniques for surveying marine living resources and methods for improving existing survey strategies. Consequently, these activities are considered to have very high priority.
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	The group's work is of relevance to the ICES Action Plan 1.2, 1.10, 1.12, 1.13 and 1.14. Terms of Reference a): The group will continue to review the state-of-the-art in fisheries optical technologies. Several countries are conducting or have recently completed significant studies in this area and the subject will benefit from a review of progress and an evaluation of the results obtained. A review of more recent work will determine the best approaches and strategies for future development. Terms of Reference b): There are several relevant conferences on the topic of optical technologies. The group will review these in order to find relevant technologies and authors for the ICES Cooperative Research Report. Terms of Reference c): Optical technologies for surveying fisheries resources, improving other techniques for surveying fisheries resources, and or characterizing fish behaviour are increasing in their accessibility, popularity, and value to fisheries management. The group will discuss recommendations within this field for future work.
RESOURCE REQUIREMENTS:	The research programmes which provide the main input to this group are already underway, and resources are already committed. The additional resource required to undertake additional activities in the framework of this group is negligible.
PARTICIPANTS:	The Group is normally attended by some 20–25 members and guests.
SECRETARIAT FACILITIES:	None.
FINANCIAL:	No financial implications. Having overlap with other meetings of expert groups of FTC increases efficiency and reduces travel costs.
LINKAGES TO ADVISORY COMMITTEES:	There are no obvious direct linkages with the advisory committees.
LINKAGES TO OTHER COMMITTEES OR GROUPS:	There is a close working relationship with WGFASST and WGFTFB.
LINKAGES TO OTHER ORGANIZATIONS:	None.

2007/2/FTC06 A **mid-term meeting of the Fisheries Technology Committee [FTC]** constituted of all the expert group chairs (Chair: Bill Karp,* USA) will meet in Bergen, Norway, on 23 June 2008 to:

- a) the general activities of the two FTC working groups WGFTFB and WGFASST and their respective EG;
- b) prepare the program of the FTC meeting in Halifax, September 2008;
- c) establish a list of nominations for awards to be submitted to the ad hoc Committee in ICES.

FTC will report by 1 September 2008 for the attention of the Consultative Committee.

Supporting Information

PRIORITY:	The current activities of this Group will maintain cohesion and allow communications between all the EG inside the FTC. Consequently this meeting is considered to have a high priority
SCIENTIFIC JUSTIFICATION:	ToR a) in 2008 the two WG will meet in separate place. As there is a need to maintain contacts between the different EG, the occasion of the ICES Symposium on fisheries acoustics (SEAFACSTs) in Bergen where most of the EG chairs will be present was taken for organising the FTC mid-term meeting. ToR b) The SC meetings in Maastricht (2006) and Helsinki (2007) did not attract participants outside the FTC. The mid-term session will consider and define topics that could interest the audience in order to prepare the FTC meeting in Halifax. ToR c) Proposals for the Prix d'Excellence and the Outstanding awards will be received from the participants of the two WGs in Torshavn (Faroe Islands) and Bergen (Norway) and a selection will be made for nominations on behalf of the FTC.
RESOURCE REQUIREMENTS:	The EG who are not normally attending the SEAFACSTs symposium will have to apply for travel and fees funding in their respective Institutes
PARTICIPANTS:	The expert group chairs of FTC
SECRETARIAT FACILITIES:	N/A
FINANCIAL:	None required.
LINKAGES TO ADVISORY COMMITTEES:	N/A
LINKAGES TO OTHER COMMITTEES OR GROUPS:	All FTC groups
LINKAGES TO OTHER ORGANISATIONS	N/A

2007/2/FTC07 The **Study Group on Fish Avoidance to Research Vessels [SGFARV]** (Co-Chairs: Julia Parrish, USA and François Gerlotto, France) will meet in Bergen, Norway, from 21–22 June 2008 to:

- a) elucidate and expand the list of the possible physical stimuli produced by research vessels (platform related stimuli – PRS) that could elicit avoidance reactions in survey-targeted species;
- b) produce a literature review to improve our understanding of fish hearing and their reaction to sound stimuli;
- c) generate a list of recommended items to be monitored and measured on research vessels, wider than just noise related;
- d) produce a review of methods for measuring avoidance to aid in the design and development of new methods to independently monitor fish reaction to PRS;
- e) design explicit experiments to further examine the causes of fish reactions to PRS.

SGFARV will report by 1 July 2008 for the attention of the Fisheries Technology Committee.

Supporting Information

PRIORITY:	The current activities of this Group will lead ICES into issues related to fish behaviour in relation to conventional and quiet fisheries research vessels, and the resulting uncertainty in survey and stock assessment results. Consequently, these activities are considered to have a very high priority.
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	<p>Action Plan No: 1.</p> <p>Term of Reference a) Many ICES nations have or are procuring noise reduced fisheries research vessels, at great additional costs relative to conventional vessels. To study the benefits of these new vessels, it is first necessary to understand the physical stimuli produced by vessels that could elicit avoidance reactions.</p> <p>Term of Reference b) 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 c) Monitoring of physical stimuli produced by vessel is necessary to determine when and why some fish avoid some survey vessels.</p> <p>Term of Reference d) Characterizing fish avoidance behaviour is challenging and a review of effective methods will aid researchers.</p> <p>Term of Reference e) New methods and experiments will be needed to better characterize fish avoidance reactions to survey vessels.</p> <p>Term of Reference a-e) The SG should disseminate findings via an ICES CRR.</p>
RESOURCE REQUIREMENTS:	The research programmes which provide the main input to this group are already underway, and resources are already committed. The additional resource required to undertake additional activities in the framework of this group is negligible.
PARTICIPANTS:	The Group is normally attended by some 15–20 members and guests.
SECRETARIAT FACILITIES:	None.
FINANCIAL:	No financial implications.
LINKAGES TO ADVISORY COMMITTEES:	There are no obvious direct linkages with the advisory committees.
LINKAGES TO OTHER COMMITTEES OR GROUPS:	There is a very close working relationship with all the groups of the Fisheries Technology Committee. It is also very relevant to the Working Group on Ecosystem Effects of Fisheries.
LINKAGES TO OTHER ORGANIZATIONS:	None

2007/2/FTC08 **The Working Group on Fisheries Acoustic Science and Technology**
[WGFAST] (Chair: R. Kloser, Australia) will meet in Bergen, Norway on 23 June 2008 to:

- a) review the major outcomes of the ICES Fisheries Acoustic Symposium by the theme sessions of:
 - i) Ecosystem and Fisheries monitoring;
 - ii) Remote classification and identification;
 - iii) Target strength modelling and measurement;
 - iv) Behaviour and assessments
 - v) Data quality and integration into ecosystem models.

To review any new and innovative methods and technologies for consideration by the WGFAST in 2009.

- b) review the reports of the:
 - i) Planning Group on the HAC (PGHAC) common data exchange format;
 - ii) Study Group on Fisheries Optical Technologies (SGFOT); and
 - iii) Study Group on Avoidance Reactions to Vessels (SGARV).
 - iv) Topic group on EK60 calibration.

WGFAST will report by 31 July 2008 for the attention of the Fisheries Technology Committee.

Supporting Information

PRIORITY:	Fisheries acoustics and complimentary technologies provide the necessary tools and methods to implement the ecosystem approach to fisheries management within ICES and research into their application and further development is vital.
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	<p>Term of Reference a) In 2008 the international ICES Symposium on the Ecosystem Approach with Fisheries Acoustic and Complementary Technologies (SEAFACETS) will be held in Bergen Norway under the auspices of the ICES WGFAST working group. The symposium themes and topics have been designed by WGFAST members to update the state of the science when applying acoustic and complimentary technologies to the ecosystem approach to fisheries management. The recent change to incorporate the ecosystem approach in fisheries management requires collecting data on several components of the ecosystem, multiple species and trophic levels. Acoustics and complimentary technologies (e.g. optics) are unique tools (usually being non-selective and non-intrusive) that can provide multi-species assessments. Following the symposium WGFAST members will meet to evaluate the science needs to be addressed at the 2009 meeting with particular attention to new emerging methods. A.N. #s 1.10, 1.12.5, 1.13.3, 1.13.4, 1.13.5, 1.14, 3.2, 3.13</p> <p>Term of Reference b) PGHAC, SGFOT, SGARV and TGC meet before WGFAST in the same location and make their reports available to the WGFAST at its annual meeting according to their terms of reference. A.N. #s: 1.12.5</p>
RESOURCE REQUIREMENTS:	No new resources will be required for consideration of this topic at WGFAST annual meeting. Having overlaps with the other meetings of the Working, Planning, Study and Topic Groups of the Fisheries Technology Committee increases efficiency and reduces travel costs; undertake additional activities in the framework of this group is negligible.
PARTICIPANTS:	The Group is normally attended by some 70-75 members and guests.
SECRETARIAT FACILITIES:	None.
FINANCIAL:	No financial implications.
LINKAGES TO ADVISORY COMMITTEES:	There are no direct linkages to the advisory committees but the work is of relevance to ACOM.
LINKAGES TO OTHER COMMITTEES OR GROUPS:	The work in this group is closely aligned with complementary work in the FTFB Working Group. The work is of direct relevance to PGHAC, SGTSEB, SGASC, and SGAFV, PGSPUN, PGRS, PGBERS, WGBIFS and PGAAM.
LINKAGES TO OTHER ORGANIZATIONS:	

2007/2/FTC09 The Study Group on combining gear parameters into effort and capacity metrics [SGEM] (Co-Chairs: Dave Reid,* UK and Norman Graham,* Ireland) will be established and will meet at ICES Headquarters, Copenhagen, Denmark from 11–15 August 2008 to:

- c) review work carried out on measuring relative/effective effort by gear type;
- d) determine the relationship between vessel construction (tonnage, power, length etc.) and the size or quantity of fishing gear deployed;
- e) from metiers, which have been identified using formal analytical tools and expert knowledge determine the relationship between key gear parameters and catch;

- f) using the measurements/indicators developed, in conjunction with relevant Assessment Working Groups, apply these to pilot fisheries where different gears are used to target the same species mix e.g. WGNSSDS, WGNSSK, WGSSDS, WGHMM.

SGEM will report by 10 September 2008 for the attention of the Fisheries Technology Committee and the findings of the Study Group will be reported in an *ICES Cooperative Research Report*.

Supporting Information

PRIORITY:	The current activities of this Group will lead ICES into issues related to the ecosystem affects of fisheries, especially with regard to the application of the Precautionary Approach. Consequently, these activities are considered to have a very high priority.
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	Action Plan No: 2.3, 3.2,3.4,3.16,4.13,4.15,5.3, 5.8 Term of Reference a) Fishing effort is the product of an individual vessels capacity to catch fish and its activity (FAO, 1999). For management purposes, capacity is generally quantified using some form of vessel characteristic that relates to its physical size and/or power. These capacity metrics are often combined with effort restrictions such as maximum days at sea, to control or limit fishing mortality. However, many studies have shown that the link between capacity, effort and fishing mortality is imprecise. This may be more precisely quantified if fishing capacity indicators also included metrics relating to the size or amount of gear deployed. In order to consider the relationship between vessel construction, gear type, activity and ultimately catch, the SGGEM, will explore the relationships between these and will consider the feasibility of using gear characteristics as indicators of fishing capacity. SGGEM will focus on several case studies including both data rich and data poor fisheries, including both single and multispecies/multi-gear fisheries.
RESOURCE REQUIREMENTS:	The research programmes, which provide the main input to this group, are already underway, and resources are already committed. The additional resource required to undertake additional activities in the framework of this group is negligible.
PARTICIPANTS:	The Study Group is likely to attract 15–20 participants from a range of appropriate scientific and technical disciplines including gear technologists, commercial gear manufacturers, mathematical and statistical modellers.
SECRETARIAT FACILITIES:	None.
FINANCIAL:	No financial implications.
LINKAGES TO ADVISORY COMMITTEES:	ACOM
LINKAGES TO OTHER COMMITTEES OR GROUPS:	There is a very close working relationship with all the groups of the Fisheries Technology Committee. It is also very relevant to the Assessment Working Groups and Working Group on Ecosystem Effects of Fisheries.
LINKAGES TO OTHER ORGANIZATIONS:	The work of this group is closely aligned with similar work in FAO and the EU Regional Advisory Councils.

2007/2/FTC10 The **Planning Group on the HAC Data Exchange Format** [PGHAC] (Chair: Laurent Berger, France) will work by correspondence in 2007/2008 to:

- a) coordinate the further development of the HAC standard data exchange format;
- b) provide information on the changes in the format and its evolution;
- c) share information between manufacturers and users on the way acoustic data are processed and stored;

PGHAC will report by 31 July 2008 for the attention of the Fisheries Technology Committee and will also make its report available to WGFASST.

Supporting Information

PRIORITY:	Essential component of WGFASST activities. The group defines the standard
------------------	---

	data capture and exchange format for all acoustic instrumentation
SCIENTIFIC JUSTIFICATION AND RELATION TO ACTION PLAN:	<p>Action Plan No: 1.</p> <p>The common data format (called HAC - Hydro Acoustic) is now already usable and shared by most of the users and manufacturers. It has been agreed that such a format must be allowed to evolve and that a group is needed to continue to work on the format in order to adapt it to the latest versions of equipment and to improve it. It is considered important that WGFASST be informed continuously on the changes in the format and its evolution; there is also a need to share information between manufacturers and users on the way acoustic data are processed and stored. This requires a permanent forum in order to deliver to the FAST members the up-dated versions of the HAC and to answer the questions of both users and manufacturers.</p> <p>The PG agreed that it could continue its work for the time being by correspondence.</p> <p>NOTE: a Tuple is a term from set theory which refers to a collection of one or more attributes.</p>
RESOURCE REQUIREMENTS:	None required. No formal meetings are required and all business will be conducted by email
PARTICIPANTS:	The HAC group includes representatives from WGFASST member institutions, and representatives of fisheries software suppliers and fisheries sounder manufacturers. The normal composition will consist of one representative from each organisation or institution and an additional nominated chair from within the HAC group. The HAC group can ask for participation on a non-voting basis of any other experts, accepting this on a majority basis.
SECRETARIAT FACILITIES:	None
FINANCIAL:	No financial implications
LINKAGES TO ADVISORY COMMITTEES:	There are no direct linkages to the advisory committees
LINKAGES TO OTHER COMMITTEES OR GROUPS:	This Group is closely aligned to WGFASST. This work is valuable for any ICES group conducting acoustic resource and monitoring surveys.
LINKAGES TO OTHER ORGANIZATIONS:	This group works closely with industry in achieving its objectives.