

FISHERIES TECHNOLOGY COMMITTEE (B)

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Chair: Dr O. Misund (Norway)

Rapporteur: Dr D. Somerton (USA)

The Fisheries Technology Committee met on Tuesday 28 September 09:30 – 13:30, and on Friday 1 October 13:30 – 18:00. There were 12 Committee Members present during the first meeting, and about 30 Committee Members and other participants during the second meeting.

Administrative Matters and Committee Business

The Chair opened the meeting, welcomed the Committee Members to Stockholm, and acknowledged the ICES Centenary by reading The Stockholm Conference 1899 article in ICES Newsletter no. 34. The agenda for the meeting was presented and adopted.

Working/Study Group Reports

The report (B:1) of the Working Group on Fishing Technology and Fish Behaviour (WGFTFB) was presented by the WG Chair A. Engås. He reported that the meeting was conducted using a new format. For each of the agenda items a keynote speaker was chosen to introduce the subject. Discussion topics were chosen, and a subgroup of participants was then formed for each topic. After the discussion each subgroup leader presented a synopsis and any recommendations to the entire WG.

Topic 1, an evaluation of the effects of fish behaviour on assessment surveys, had two subgroups. The first examined various issues related to estimation of absolute abundance estimates from survey data, and the other examined how fish behaviour could influence fish detection or capture within various capture zones surrounding the vessel and fishing gear.

Topic 2 was a consideration of various methodologies to study physical impacts of fishing gear on benthos and bottom substrates and possible modifications to fishing gears to reduce these impacts. Recommendations of the Working Group were: 1) there is a need for broader access to information on gear impacts on benthos and bottom substrates because much of the relevant studies are unpublished. Perhaps a website focused on this subject would fulfill this need; 2) the FTFB should have a joint session with the WG examining the bottom effects of fishing (WGECO); and 3) the Fisheries Technology Committee should initiate a dialogue with the Resource Management Committee to take forward the work described in the recommendations of the Study Group on the Use of Selectivity and Effort Measurements in Stock Assessment (SGSEL). In addition, the WG Chair Engås answered several questions from Fisheries Technology Committee members about the recently constructed FTFB home page, reporting that it is operational but does

not yet include all of the functionality originally recommended by the WG to its developer.

The report (B:2) of the Working Group on Fisheries Acoustics Science and Technology (WGFAST) was presented by the WG Chair F. Gerlotto. Four topics were considered: 1) methods for target strength estimation; 2) impacts of fish avoidance on abundance estimation; 3) a format for exchanging acoustic data; and 4) report of the Study Group on Estimating Target Strength and other special topics. Besides the recommendations presented in the WG report, the WG Chair further recommended that a new SG or WG be formed to study the effects of fish behavior on acoustic assessment and net sampling. The reason given for this is that questions about the effects of fish behaviour are becoming increasingly more prevalent in both the FAST and FTFB working groups. Since there is a need for behavioral research in both working groups the problem could be examined by a larger combined audience by forming a new group, and the existing working groups could focus on more specialized subjects.

The WGFAST/WGFTFB joint session report (B:3) was presented by the Convenor J. Masse. Seven talks on fish behaviour were presented. Recommendations included: 1) the Fisheries Technology Committee should consider the subject “Visualization and measurement of behaviour” as a special topic for the next WGFTFB/WGFAST joint session, and the subject “Impact of fish behaviour on living resource management” as a theme session at the next Annual Science Conference; and 2) the Fisheries Technology Committee should consider the creation of a study group on the effects of fish behaviour on direct assessment methods.

The report (B:4) of the Study Group on the Selectivity of Static Gears was provided by O. Misund. The primary recommendation of the SG was that a new manual on this subject is now needed.

2000 WGFTFB/WGFAST Meeting

O. Misund reported that the scheduled year 2000 WGFTFB/WGFAST meetings conflict with Easter. It was agreed that the meetings should be moved from 17–21 April to 10–14 April. The WG meetings will occur in Harlem, Netherlands, while the Study Group meeting will be held 8–9 April in Ijmuiden. Besides the change in date, it was proposed to have the Joint WGFTFB/WGFAST session on Wednesday 12 April rather than Friday 14 April to ensure good participation. After considerable discussion, the change in date was agreed upon. It was recommended that the 2001

WGFTFB/WGFAST meeting should be hosted by the Alaska Fisheries Science Center in Seattle, USA.

ICES Strategic Plan

O. Misund reviewed the scientific objectives in the strategic plan. Considerable discussion focused on one sub-topic of the plan: "Develop improved technical measures for fishery management", and a potentially more acceptable revision was recommended. Discussion also focused on the section of the plan: "ecosystem approach in ICES advice". O. Misund reviewed the recent studies of the effect of trawling on the Norwegian coral reefs and the resulting trawl closure, emphasizing the importance the EU is now placing on fishing gear impacts on the marine habitat.

Upcoming Symposia

The year 2000 Helsinki Symposium on the History of ICES will be held August 1–3. For each of 12 topical areas, a keynote speaker will review the historical contribution provided by ICES. The Fishing Technology Committee will submit two papers: one entitled "Acoustic applications in fisheries: the ICES contribution", and a second considering the contributions to fishing gear research.

A report describing the 5th ICES Symposium on Acoustics in Fisheries and Aquatic Ecology to be held in Montpellier, France, on 10–14 June 2002 was given by F. Gerlotto.

2000 ICES ASC Theme Sessions

Proposed Fisheries Technology Committee theme sessions for the next ICES ASC are: 1) Efficiency, Selectivity and Impact of Passive Fishing Gears to be convened by A. Carr and G. Brothers; 2) Evaluation of the Impact and Incorporation of External Factors in Marine Resource Surveys to be convened by E. J. Simmonds, P. Petitgas, and S. Walsh; and 3) Impact of Fish Behaviour on Living Resource Management to be convened by P. Freon and D. Skagen.

Reports

The final document from the Study Group considering *in situ* measurements of target strength has been printed as an ICES Cooperative Research Report (No. 235). A brief synopsis of the document and further research in the field was given by Dave Demer.

The report from the Study Group on Echo Trace Classification is nearing completion. The final meeting of the group occurred at the 1999 WGFTFB/WGFAST

meeting in St. Johns. The report will be submitted to ICES in October 1999. A brief review of its contents was provided by the SG Chair, D. Reid.

Census of Marine Life (CoML)

A synopsis of a Sloan Foundation program "Census of Marine Life" (CoML) was provided by its steering committee member Olav Rune Godø. After its initiation in 1997, the foundation supported several workshops and appointed a steering committee in 1999. The program has a long time frame (10 years) with the objective "to assess and explain the global distribution and abundance of marine life". The foundation intends to conduct the world census by partnering with various resource management agencies and by funding research through a grant program. Proposals for grants will be accepted by the US-NOPP (National Oceanographic Partnership Program) beginning this year. Workshop reports and information on grants are available on the foundation's home page (<http://core.cast.msstate.edu/censhome.html>).

Recommendations

The recommendations from the Fishery Technology Committee, presented to the midterm meeting of the Consultative Committee, were reviewed and adopted with the changes of dates referred to in the 2000 WGFTFB/WGFAST meeting chapter.

Two recommendations concerning the Census of Marine Life were put forward and adopted. These were later merged with recommendations from the Living Resources Committee concerning the same program.

Announcements

A. Engås reported that representatives of WGFTFB will meet with the WGECHO (Chair Dr Jake Rice) to determine if a joint WGFTFB/WGECHO meeting would be a productive start for research leading to the development of towed fishing gears that are less destructive to bottom habitat than current gears.

WGFAST Chair F. Gerlotto will continue as Chair until the next WG meeting. Yvan Simard, Canada will then assume the position of Chair.

A Topic Group will be formed and chaired by J. Masse under the WGFTFB/WGFAST Joint Session for the purpose of examining the influence of fish behavior on stock assessment and to consider the establishment of a study or working group on this subject. The Topic Group will provide a report at the next joint WGFTFB/WGFAST meeting.

Documents

- B:1 Working Group on Fishing Technology and Fish Behaviour (WGFTFB)
- B:2 Working Group on Fisheries Acoustic Science and Technology (WGFAST)
- B:3 Joint Session of Working Group on Fishing Technology and Fish Behaviour and Working Group on Fisheries Acoustic Science and Technology (WGFTFB and WGFAST)
- B:4 Study Group on Methods for Measuring the Selectivity of Static Gear (SGMMG)

Reference Papers:

G:2, H:7