

2013/MA2/SSGESST02

The **Working Group on target classification (WGTC)**, chaired by Rolf Korneliussen, Norway, will meet in Vigo, Spain, from 16–17 April 2016, to work on ToRs and generate deliverables as listed in the Table below.

	MEETING DATES	VENUE	REPORTING DETAILS	COMMENTS (CHANGE IN CHAIR, ETC.)
Year 2014	3-4 May	Boston, USA	Interim report by 4 July 2014 to SSGESST (SSGIEOM) and WGFASST	
Year 2015	29-30 May	Nantes, France	Interim report by 4 July 2015 to SSGIEOM and WGFASST	
Year 2016	16–17 April	Vigo, Spain	Final report by 4 June 2016 to SSGIEOM, SCICOM, WGFASST & ACOM	

ToR descriptors

ToR	Description	Background	Science Plan topic addressed	Duration	Expected Deliverable
a	Review, summarize and report on the literature regarding (1). Acoustic systems currently used in fisheries research and surveys, (2) theoretical principles of target classification and (3) methods currently being practiced;	The ICES reference for acoustic target classification needs to be useful to practitioners of fisheries acoustics and ecosystem surveys that produce data for stock management. The first step in this process is to review, summarize and report on the literature regarding the methods that are currently used in fisheries research and surveys. The theoretical principles for target classification must be summarized, and the methods currently being practiced must be evaluated		2 year	Review document presented to WGFASST in 2015
b	Develop recommendations protocols for methods to be used for target classification during ecosystem surveys including (1) commonly used acoustic systems used in fisheries research and surveys (2) principles of classification, general and specific to these selected systems (3) standard protocols for classifying	There is a need for recommendations to the ICES community for methods to be used for acoustic target classification. These methods cover commonly used acoustic systems used in fisheries research and ecosystem surveys, and must be generic enough for application in systems not specifically considered. The methods must be practical and based on		Year 3	Recommendations document presented to WGFASST in 2016

	multifrequency data	solid theoretical principles.		
c	Based on ToR a) and b) a CRR proposal should be developed for SCICOM consideration.	There is a recognized need to comprehensively document the current theory and recommended practice of acoustic target classification for use in Fisheries Science and ecosystem surveys, and publish them in an easily accessible report.	Year 3	CRR proposal submitted for consideration by SCICOM in September 2016

Summary of the Work Plan

Year 1	Initiate the work
Year 2	Finalize the review (ToR a)
Year 3	Finalize the recommendations and prepare a CRR proposal (ToR b and c)

Supporting information

Priority	<p>Acoustic data are currently being collected from a variety of acoustic systems in many countries to address a range of ecosystem monitoring and stock management objectives. There is no ICES CRR covering this topic, but there are two CRR for related topics: CRR 238 (2000), Editor: Dave Reid, Report on Echo Trace Classification; and CRR 287 (2007), Editor John Anderson on Acoustic seabed classification of marine physical and biological landscapes. Note that the CRR-238 focused mostly on single-frequency and school-based methods, and that at the time work on multifrequency and wideband methods (while covered in that CRR) was more in development but now is much more mature.</p> <p>There is also a comprehensive report from an EU financed project: Fernandes, P.G., Korneliussen, R.J., Lebourges-Dhaussy, A., Masse, J., Iglesias, M., Diner, N., Ona, E., et al., 2006. The SIMFAMI project: species identification methods from acoustic multifrequency information. While much of the theoretical principles of those reports are still relevant, target classification is a fast moving field. The methods need to be expanded to include currently used technologies (e.g. multibeam and broadbandwidth systems). There exists an urgent need to evaluate recent work and to develop recommendations for protocols appropriate to target classification used in fisheries research and ecosystem surveys. This need has been identified by a number of ICES Member Countries and observer countries and has been conveyed to WGFASST and SCICOM.</p>
Resource requirements	No new resources will be required for consideration of these topics at the relevant group meetings. Having overlaps with WGFASST meetings, this SG will draw on a larger resource pool of experts which will increase efficiency in completing the objectives and reducing travel costs.
Participants	<p>It is expected that ca. twenty five scientists from six ICES and three observer countries will participate in the study group. The following 18 have so far committed to the group.</p> <p>Rolf J Korneliussen (IMR, Norway), Stephane Gauthier (Canada), Ian McQuinn (Canada), Anne Lebourges Dhaussy (France), Pierre Petitgas (Ifremer, France), Laurent Berger (Ifremer, France), Mathieu Doray (France) Michael Jech (NEFSC/NOAA, USA)</p>

	<p>Alex.DeRobertis (AFSC/NOAA, USA) Gareth Lawson (WHOI, USA), John Horne (AFSC/USA) Dezhang Chu (NWFSC/NOAA, USA) Sasha Faessler (Netherlands) Sergey Goncharov (VNIRO, Russia), Svetlana Kasatkina (ATLANTNIRO, Russia), Sophie Fielding (BAS, UK), Martin Cox (AAD, Australia), Rudy Kloser (CSIRO, Australia)</p>
Secretariat facilities	SharePoint site.
Financial	No financial implications. Having overlaps with other meetings of expert groups of SCICOM increases efficiency and reduces travel costs.
Linkages to ACOM and groups under ACOM	The work will enable acoustic data collection across a wider range of taxa, and thereby provide supporting information for the advisory groups.
Linkages to other committees or groups	The EG is closely linked to WGFAST, and is relevant to the survey groups that perform acoustic surveys, and in particular those that collect information on several taxa and across several trophic levels
Linkages to other organizations	No direct linkages, however, organizations and institutes that organizes and perform acoustic surveys will benefit from the work. Software and hardware industrial suppliers may also be interested in the results.