WGACEGG – Working Group on Acoustic and Egg Surveys for Sardine and Anchovy in ICES Areas 7, 8 and 9

**2017/MA2/EOSG03** A Working Group on Acoustic and Egg Surveys for Sardine and Anchovy in ICES areas 7, 8, and 9 (WGACEGG), chaired by Maria Santos, Spain and Mathieu Doray, France, will work on ToRs and generate deliverables as listed in the Table below.

	Meeting dates	Venue	Reporting details	Comments (change in Chair, etc.)
Year 2017	3–17 November	Cadiz, Spain	Interim report by December, 1st 2017 to EOSG	First year of new co-chairs M; Santos and M. Doray
Year 2018	19-23 November	Nantes, France	Interim report by 4 January 2019 to EOSG	
Year 2019	18-22 November	Madrid, Spain	Final report by 17 January 2019 to EOSG	Change in chair

## **ToR descriptors**

TOR	DESCRIPTION	BACKGROUND	SCIENCE PLAN CODES	DURATION	EXPECTED Deliverables
a	Provide echo-integration and Daily Egg Production Method (DEPM) estimates for sardine and anchovy in ICES sub-Areas 7, 8 and 9	a) Advisory Requirements b) Requirements from other EGs	3.1	3 years	Abundance and biomass estimates by age group. Fish spatial distribution will be provided to WGHANSA by the end of the WGACEGG meeting. Datasets will be published in the ICES facility when available.
b	Analyse sardine and anchovy (adults and eggs), spatial and temporal distribution and their habitats in European waters	a) Science Requirements b) Requirements from other EGs	1.5	Year 3	Manuscript and/or technical report in 2019
c	Provide ecosystem data such as temperature, salinity, plankton diversity, top predators abundances, egg densities and backscattering for sardine, anchovy and other small pelagic fish for pelagic ecosystem monitoring (e.g. MSFD)	a) Science Requirements b) Requirements from other EGs	1.4, 1.5	3 years	Gridded maps updated every year. Datasets will be published in the ICES facility when available.
d	Assess developments in the technologies and data analyses for the application of both acoustics and the DEPM (on Egg Production or adult parameters).	b) Advisory Requirements	3.3	3 years	New methodologies reported in annual WG report, available to the public one month after the meeting.

e	Improve and assess the suitability of CUFES data for anchovy and sardine egg production estimates in areas 8 and 9.	<ul><li>a) Science Requirements</li><li>b) Advisory Requirements</li><li>c) Requirements from</li><li>other EGs</li></ul>	3.3	3 years	Advances reported in annual WG report, available to the public one month after the meeting.
f	Coordination and standardization of the surveys	a) Science Requirements b) Advisory Requirements	3.1, 3.2	3 years	Annual plan for coordinated surveys. Updated survey protocols
g	Development and standardization of data processing methods for DEPM and acoustics for surveys in Atlantic and Mediterranean waters	a) Science Requirements b) Advisory Requirements c) Requirements from other EGs	3.1, 3.2	3 years	Updated data processing protocols shared with the MEDIAS group (Mediterranean acoustic survey group)
h	Provide echo-integration estimates for other species (mainly blue whiting, mackerel, horse mackerel, chub mackerel and boarfish) ICES sub-Areas 8 and 9	a) Advisory Requirements b) Requirements from other EGs	3.5	3 years	Biomass per age group when available otherwise per length classes and spatial density distribution, provided to WGWIDE before the WG annual meeting. Datasets will be published in the ICES facility when available.
i	Ensure QAQC procedures are in palce	ICES aims to have a quality assurance process for data collections used in the provision of advice. One element of this is that all procedures describing the data collection are adequately described.	3.1	3 years	Develop an independent SISP for the data collection and product specification conducted under the auspices of WGACEGG
j	Compare acoustic and DEPM biomass estimates of anchovy and sardine to improve the precision of stock estimates	<ul><li>a) Science Requirements</li><li>b) Advisory Requirements</li><li>c) Requirements from</li><li>other EGs</li></ul>	-	3 years	Advances reported in annual WG report, available to the public one month after the meeting
k	Develop the use of imagery techniques to characterise the distribution of surface mesozooplankton and possibly microplastics in areas 8 and 9, based on CUFES and/or PairoVET samples.	a) Science Requirements b) Requirements from other EGs	1.2	3 years	Advances reported in annual WG report, available to the public one month after the meeting

	Annual meeting:
Year 1	Session on acoustic data collection and analysis
	Session on DEPM data collection and analysis
	Session on acoustic and DEPM indices comparison
	Update of gridded maps of ecosystem data derived from surveys
	• Session on methods for the analysis of series of gridded maps of ecosystem data
	<ul> <li>Session to analyse progress on sardine and anchovy egg production estimates from CUFES</li> </ul>
	Submission of the WGACEGG DEPM Survey Protocols (SISP)
	Annual meeting, including a joint session with MEDIAS (Mediterranean acoustic survey group):
	Session on acoustic data collection and analysis
	Session on DEPM data collection and analysis
	Session on anchovy and sardine eggs staging intercalibration exercises
	Session on acoustic and DEPM indices comparison
Year 2	Session on survey design
	Update of gridded maps of ecosystem data derived from surveys
	Session on methods for the analysis of series of gridded maps of ecosystem data
	<ul> <li>Session to analyse progress on sardine and anchovy egg production estimates from CUFES</li> </ul>
	Submission of the WGACEGG acoustic Survey Protocols (SISP)
	Annual meeting:
	Session on acoustic data analysis and developments
Year 3	Session on DEPM data analysis and developments
	Session on anchovy and sardine eggs identification and staging using automated
	methodologies
	Session on acoustic and DEPM indices comparison
	<ul> <li>Writing of a report or manuscript on the analysis of series of WGACEGG gridded maps of ecosystem data</li> </ul>
	<ul> <li>Session to analyse progress on sardine and anchovy egg production estimates from CUFES</li> </ul>

## Supporting information

Priority	The current activities of this Group will ensure the provision and the quality of the data provided to ACOM advisory groups in charge of the assessment of anchovy, sardine, blue whiting, Atlantic and horse mackerels and boarfish in the North Eastern Atlantic. The activities of the group will also lead to the provision of series of gridded maps of data on the hydrology, phytoplankton, small pelagic fish and megafauna of the North Eastern Atlantic pelagic ecosystem. Those spatially explicit data will be useful to any group interested in assessing the state of the North Eastern Atlantic pelagic ecosystem. Consequently, these activities are considered to have a very high priority.
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 15–30 members and guests.
Secretariat facilities	None.
Financial	No financial implications.

Linkages to ACOM and group	WGACEGG is cooperating with the following advisory structures		
under ACOM	a) ICES Assessment Working groups: HANSA, WIDE, together with related		
	Benchmark WG and Workshops		
	b) Advice drafting Groups: ADGHANSA		
Linkages to other committees or groups	There is a close working relationship with the following SCICOM groups: WGFAST, WGALES and WGMEGS.		
Linkages to other organizations	A joint session is held every two years during WGACEGG annual meeting with the survey group MEDIAS in charge of the coordination of acoustic surveys in the Mediterranean Sea.		