

## WGALES – Working Group on Atlantic Fish Larvae and Eggs Surveys

2012/MA2/SSGESST17

The Working Group on Atlantic Fish Larvae and Eggs Surveys (WGALES), chaired by **To be determined**, and Richard D. M. Nash, Norway, will work on ToRs and generate deliverables as listed in the Table below.

	Meeting dates	Venue	Reporting details	Comments (change in Chair, etc.)
Year 2013	Correspondence	Intersessional	Interim report by 5 January 2015 May 2013 to SSGESST (SSGIEOM)	Group is planning to meet face to face in 2 <sup>nd</sup> year – see below.
Year 2014	1–5 December	San Sebastian, Spain	Interim report by 5 January 2015 to SSGIEOM	Cindy Van Damme to be replaced by Richard Nash for the next meeting of WGALES
Year 2016	17–21 October	Thessaloniki, Greece	2 <sup>nd</sup> Interim report by 1 December 2016 to SSGIEOM, SCICOM	Group is completing their second year of work, Maria Manuel Angélico to be replaced in 2017.
Year 2018	22-26 October	Vigo, Spain	Final report by 1 December 2018 to SSGIEOM	<i>This group will be finalizing their third year in 2018 as every second year the group is doing fieldwork</i>

### ToR descriptors

ToR	Description	Background	Science Plan topics addressed	Duration	Expected Deliverables
a	Present current ichthyoplankton surveys in the light of their original purposes, with respect to design, estimation methods and challenges (including their potential as ecosystem surveys);	The activities of WGALES are vital for the delivery of state-of-the-art ichthyoplankton surveys, ensuring high standards and incorporating new techniques and developments for the future. WGALES will lead to the cross fertilization of ideas, methodologies, developments and standardization of ichthyoplankton surveys in the ICES area. Hence providing a platform from which to improve the assessments based on the ichthyoplankton surveys. WGALES fits into the ICES science plan sections 5.1 and 5.2.	5.1, 5.2	Years 1, 2, 3 (2014, 2016, 2018)	Report in 2014, 2016, 2018
b	Present current understanding and future	Use of natural mortality in egg production and	5.1, 5.2	Year 1 (2014)	Report with review of developments and

	research needs of natural mortality of fish eggs and larvae in order to improve accuracy and precision of egg production and larvae abundance estimates of the ichthyoplankton surveys;	larvae abundance estimates is limited. Current developments and use of natural mortality estimates to improve accuracy and precision of ichthyoplankton survey estimates.			needs for future research of natural mortality of fish eggs and larvae. Suggestions on how natural mortality can be incorporated in egg production and larvae abundance estimates of the ichthyoplankton surveys.
c	Prepare a template for the ICES ichthyoplankton survey protocols	A new publication series of survey protocols on ICES surveys has been initiated. No template exists for the ichthyoplankton survey protocols.		Year 1 (2014)	Survey protocol template for ICES ichthyoplankton surveys.
d	Receive and act upon ToRs from Working Groups within the umbrella of ichthyoplankton surveys e.g. IBTSWG, WGACEGG, WGIPS, WGMEGS, WGEGBS2.	The activities of WGALES are vital for the delivery of state-of-the-art ichthyoplankton surveys, ensuring high standards and incorporating new techniques and developments for the future. WGALES will lead to the cross fertilization of ideas, methodologies, developments and standardization of ichthyoplankton surveys in the ICES area. Hence providing a platform from which to improve the assessments based on the ichthyoplankton surveys.	5.1, 5.2	Years 1, 2, 3).If necessary WGALES can react by correspondence on urgent ToR's from other ichthyoplankton surveys groups in 2013, 2015 and 2017. During the meeting in 2014 ToR's from ichthyoplankton survey groups from 2013 and 2014 will be addressed and reported on.	Report in 2014, 2016, 2018. Responses to specific requests from the ichthyoplankton Working Groups.
e	Present current understanding and future research needs for integrating ichthyoplankton data and methodologies into methodologies for assessing population sizes. Undertake investigations on streamlining and cost effective surveys and methodologies for the implementation of Egg Production Methods for estimating Spawning Stock Biomass	Ichthyoplankton surveys are often part of a larger and more encompassing set of studies which are aimed at determining population size e.g. Egg Production Methodologies. There is a need to review the various aspects of such research, as a complete study, to ensure the correct data are collected and there is a general understanding of how all the parts fit together to ensure complete and as accurate and precise as	5.1, 5.2	Year 2, 3 (2016, 2018)	Report with review of methodologies and potential 'pitfalls' for undertaking multidisciplinary estimations of stock size which involve the use of ichthyoplankton surveys, and needs for future research for a better integration of fish egg and larvae data.

		possible estimates of stock size are realised.			
f.	Present and report on fish eggs and larval development and early life strategies in boreal and tropical regions.	The timing and type of ichthyoplankton survey needs to be tailored over spatial and temporal scales. Consideration also needs to be made for the taxonomy, egg and larvae mortality and development, stage duration (e.g. in relation to temperature, salinity, start of spawning season etc.). Other basic information needs to be also considered such as strategies of foraging larvae to cope with ambient conditions in different regions of the marine environment. Some of this information can also be obtained from the surveys providing an appropriate survey design is implemented.	5.1, 5.2	Year 3 (2018)	Report in 2018 on the life history strategies of fish eggs and larvae over a range of ecosystems. The report will suggest optimal sampling strategies for determining abundance, mortality, distribution and ecology of the early life history stages of fishes.

### Summary of the Work Plan

<b>Year 1 (2013/14)</b>	WGALES will communicate by correspondence to act upon urgent Tor's from ichthyoplankton survey groups (ToR d) and then meet to address ToRs a, b, c and d.
<b>Year 2 (2015/16)</b>	WGALES will communicate by correspondence to act upon urgent Tor's from ichthyoplankton survey groups (ToR d) and then meet to address ToRs a, d and e.
<b>Year 3 (2017/18)</b>	WGALES will communicate by correspondence to act upon urgent Tor's from ichthyoplankton survey groups (ToR d) and work on developments in methodology in adult reproductive parameters (ToR e). The WG will then meet to address ToRs a, d, e and f.

### Supporting information

Priority	The activities of WGALES are vital for the delivery of state-of-the-art ichthyoplankton surveys, ensuring high standards and incorporating new techniques and developments for the future. WGALES will lead to the cross fertilization of ideas, methodologies, developments and standardization of ichthyoplankton surveys in the ICES area. Hence providing a platform from which to improve the assessments based on the ichthyoplankton surveys. WGALES fits into the ICES science plan sections 5.1 and 5.2.
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 is ICES secretariat support for reports.
Participants	The Group will be attended by members of ICES groups, WGMEGS, WGEGBS2, WGIPS, IBTSWG, WGACEGG and guests carrying out ichthyoplankton surveys in the non-ICES areas.
Secretariat facilities	ICES secretariat support for reports.
Financial	DCF funding is required to support the attendance of the meetings.

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Linkages to ACOM and groups under ACOM	There are linkages with the advisory committees through the individual ichthyoplankton surveys groups. Through the review and standardization of the ichthyoplankton surveys the quality of the data for the assessments is ensured.
Linkages to other committees or groups	SCICOM and there is a very close working relationship with the all the groups of ichthyoplankton surveys, WGMEGS, WGEGBS2, WGIPS, IBTSWG, WGACEGG and their assessment groups, WGWIDE, HAWG, WGHANSA.
Linkages to other organizations	No formal linkages.

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