## WKASMSF-Workshop for Advancing Sexual Maturity Staging in Fish

## 2017/2/EOSG18

The Workshop for Advancing Sexual Maturity Staging in Fish (WKASMSF), chaired by Maria Cristina Follesa, Italy, and Cindy van Damme, The Netherlands, will meet in Copenhagen, Denmark, 30 April–4 May 2018 to:

- a) Prepare a historical overview of (national) maturity scales used for uploading sexual maturity staging data into the ICES and GFCM databases;
- b) Create an overview, or prepare new, conversion tables from national maturity scales to the international agreed maturity scales;
- c) Establish an implementation plan for the international agreed maturity scales of WKMATCH and MEDITS, as the only scales for reporting to ICES and GFCM databases, respectively.
- d) Expand general histological criteria, for validation of macroscopic maturity staging, as established by WKMATHIS for the different reproductive strategies in teleosts.

WGASMSF will report by **15 June 2018** for the attention of the WGBIOP, SCICOM, ACOM, EOSG and DIG.

## **Supporting information**

Priority	Macroscopic stages of gonadal development are an essential feature in fish stock assessment
Priority	to estimate the maturity ogive and Spawning-stock biomass (SSB). In 2012 WKMATCH has
	prepared a general international agreed maturity staging scale for macroscopic mturity
	staging. Subsequent maturity staging workshops have used this scale for calibration.
	However, this scale has never been introduced and implemented into the ICES databases. As
	a results the current maturity data uploaded to the international databases are based on
	various (national) maturity scales. Also data uploaded on the GFCM database are sometimes
	subject to confusion, due to a mismatch between the MEDITS agreed scale and the national scale.
	It is vital that a historic overview is created of the scales used to uplaod data by the individual
	institutes. Together with conversion tables to convert the historic maturity data to the
	international agreed maturity scale (WKMATCH and MEDITS). A convertion table between
	WKMATCH and MEDITS scales is also auspicable in order to harmonize the maturity
	staging between ICES and GFCM. Secondly, an implementation plan for the international
	agreed maturity scale in the internatinal databases with restricted uploading needs to be developed.
	For validation of macroscopic maturity staging, histology is essential. WKMATHIS has
	prepared general histological descriptions for teleosts to go with the maturity staging scales. However, these general descriptions need to be expanded for the various reproduction strategies in teleosts.
Scientific justification	Term of Reference a)
	A historical overview of the scales used by each institute for uploading data into the ICES and GFCM databases is necessary. Currently data are uploaded in the ICES M6 scale, but the actual scale used by national institutes does not always correspond to the the ICES and/or GFCM vocabulary. As a result the maturity data in the ICES and/or GFCM databases is misinterpreted.
	Term of Reference b)
	Conversion tables are necessary to be able to convert the historic maturity data to the new
	agreed international maturity staging scale. A specific conversion from WKMATCH and MEDITS is also essential. This should include an interpretation of which stages are immature and mature.
	Term of Reference c)
	An implementation plan needs to be prepared so that all parties concerned (i.e. ICES, GFCM, national institutes, survey groups, assessment groups) are aware that the international

	agreed maturity scale is implemented in the ICES and GFCM databases respectively and that new uploaded data can only be uploaded in the new scale.
	Term of Reference d)
	The generic histological descriptions of the international maturty scale need to be expanded to the different reproductive straregies.
Resource requirements	No specific resource requirements beyond the need for members to prepare for and participate in the meeting.
Participants	Participants should include an expert from the ICES and GFCM data centre and a mixture of scientists and key technicians with expertise in maturity scales used at the national institutes, macroscopic stages of gonadal development and histological methods, as well as stock assessment. The implementation plan needs to be developed in close cooperation with the ICES and GFCM data centre.
Secretariat facilities	None.
Financial	Travel costs will be eligible for participants from Member States of the European Union through the EU Data Collection MAP (DCMAP).
Linkages to advisory committees	ACOM
Linkages to other committees or groups	WGBIOP
Linkages to other organizations	There is a direct link with the EU DCF.