## Workshop on Elasmobranchs maturity

The **Workshop on Elasmobranchs maturity** (WKSEL3) chaired by Maria Cristina Follesa, Italy and Pierluigi Carbonara, Italy, will meet in Cagliari, Italy, 25–29 of September 2017 to:

- a) Update the international maturity scales based on macroscopic features both for oviparous and viviparous species
- b) validate both maturity scales based on macroscopic features through histological analysis
- c) Update the conversion tables both for oviparous and viviparous species;
- d) Compile an Atlas using both macroscopical and histological gonad pictures
- e) Increase the number of case studies with particular attention for viviparous species

WKSEL3 will report by 1 December 2017 for the attention of ACOM and WGBIOP.

## **Supporting Information**

Priority:	According to the most recent data of the IUCN red list , a quarter of the world's sharks and rays are threatened and more are considered to become extinct in the near future, with ray species found to be at a higher risk than sharks. Close to 40% of the species are classified as Data Deficient. In the last years, worldwide chondrichthyan fisheries have expanded in response to growing demand and the utilization of more technically equipped fishing vessels. These developments, together with the decline in several elasmobranch stocks, have led to a call for an improvement in international actions for the management of sharks and related species to ensure sustainable elasmobranch fisheries. One of the most important parameters used in stock assessment is the maturity of a species. The maturity is used in the calculation of maturity ogives (and therefore of Spawning-stock biomass), for defining the spawning season of a species, for monitoring long term changes in spawning cycle, and for many other research needs related to the biology of fish.
Scientific justification and relation to action plan:	<ul> <li>This workshop will provide the opportunity to regroup the ICES/GFCM community working on this field. During the 2012 WGSEL2 workshop a common maturity scale with objective of common criteria was proposed both for oviparous and vivparous elasmobranchs species. Laboratories involved in the collection of maturity data agreed to use the common scale for reporting.</li> <li>This new workshop (WGSEL3) has the objective of updating the common scales to be used, but also to define new objective criteria to classify the maturity stages in those scales.</li> <li>The expectations of TORs are: <ul> <li>a) Update the international maturity scales based on macroscopic features both for oviparous and viviparous species</li> <li>b) validate both maturity scales based on macroscopic features through histological analysis</li> <li>c) Update the conversion tables both for oviparous and viviparous species;</li> <li>d) Compile an Atlas using both macroscopical and histological gonad pictures</li> <li>e) Increase the number of case studies with particular attention for viviparous species</li> </ul> </li> </ul>
Resource	Before the Workshop, the chairs will setup a plan for collecting samples to be used during the workshop
requirements:	For all species, the sampling parameters to be recorded are: total length; gonad visual inspection - maturity stage using the new common maturity scale; total weight; gonad weight; liver weight; gutted weight; gonad photo; age; histological maturity stage; histological photos. This workshop will be based on the analysis of both digital photos of gonads and fresh gonads. Therefore facilities suitable to examine fresh biological material must be available during the workshop. It would be necessary to have a web server for storage and easy access to the photos collected by the participants before the workshop.
Participants:	In view of its relevance to the DCF, the Workshop is expected to attract wide interest from ICES Member States and Mediterranean countries participating in biological sampling of

	Elasmobraches species. Participants should include a mixture of scientists and technicians with expertise in maturity staging, biology and stock assessment of fish.
Secretariat facilities:	ICES
Financial:	To obtain all biological data before the Workshop, funding is needed for buying fresh ungutted fish and for processing gonads histology.
	To ensure wide attendance of relevant experts, additional funding will be required, preferably through the EU, e.g. by making attendance to the Workshop eligible under the DCF
Linkages to advisory committees:	ACOM/WGBIOP
Linkages to other committees or groups:	This workshop is proposed by WGBIOP. Outcomes from this Workshop will be of interest to all Working and Study Groups working on assessment as well as to survey groups like the IBTSWG, WGMEGS, WGEF and MEDITS-WG.
Linkages to other organisations:	There is a direct link with the EU DCF.