STECF
EXPERT WORKING GROUP EWG 17-09

on Stock Assessment 2017:
Part 1 – European fisheries for small pelagic species in the Mediterranean Sea

23-29 Sep 2017, venue, tbc

DG MARE focal persons: Amanda Perez Perera
Chair: John Simmonds

GENERAL GUIDELINES: unless the data used and information provided comes from the official DCF data calls, the experts are requested to indicate the data source from where certain information has been taken (e.g. L-W relationships, prices) or if it is an experts' reasoned guess.

Data collected outside the DCF shall be used as well and merged with DCF data whenever necessary and following quality check. Due account shall also be given to data used and assessments carried out within the FAO regional projects co-funded by the European Commission and EU-Member States in particular when using data collected through the DCF/DCR and EU funded research projects, studies and other types of EU funding.

The raw data used to generate the input data, assessment scripts as well as input files should be made available to the JRC for reproducibility of the assessments and documentation.

For the stocks given in Annex I, the EWG 17-09 is requested:

ToR 1. To compile and provide the most updated information on stock identification and boundaries, length and age composition, growth, maturity, feeding, essential fish habitats, and natural mortality.

ToR 2. To compile and provide complete sets of annual data on landings and discards for the longest time series available up to and including 2016. This should be presented by fishing gear as well as by size/age structure (see Annex II for more details).

ToR 3. To compile and provide complete sets of annual data on fishing effort for the longest time series available up to and including 2016. This should be described in terms of amount of vessels, time (days at sea, soaking time, or other relevant parameter) and fishing power (gear size, boat size (linear and/or GT), engine power kW, etc.) by Member State and fishing gear. Data shall be the most detailed possible to support the establishment of a fishing effort and/or capacity baseline (see Annex II for more details).

ToR 4. To Compile and provide indices of abundances and biomass by year and size/age structure for the longest time series available up to and including 2016 (see Annex II for more details).

ToR 5. To assess trends in historic and recent stock parameters on fishing mortality, stock biomass, spawning stock biomass, and recruitment. Different assessment models should be applied as appropriate, including retrospective analyses. The selection of the most reliable assessment shall be explained. Assumptions and uncertainties shall be specified.

ToR 6. To estimate candidate MSY point-value, MSY range values and conservation reference points (precautionary and limit) in terms of fishing mortality and stock biomass. The proposed values shall be related to long-term high yields and low risk of stock/fishery collapse and ensure that the exploitation levels restore and maintain marine biological resources at least at levels which can produce the maximum sustainable yield.

ToR 7. To provide short and medium term forecasts of spawning stock biomass, stock biomass and catches. The forecasts shall include different management scenarios, *inter alia*: zero catch, the status quo fishing mortality, and target to F_{MSY} (including the ranges) or other appropriate proxy by 2020. In particular, on the basis of the average commercial catch rates, estimate the level of fishing effort exerted by the different fleets which is commensurate with the short- and medium-term forecasts of the proposed scenarios.

ToR 8. To summarize and concisely describe all data quality deficiencies, including possible limitations with the surveys of relevance for stock assessments and fisheries. Such review and description are to be based on the data format of the official DCF data call for the Mediterranean Sea launched on the March 2017. Identify further research studies and data collection which would be required for improved fish stock assessments. This review shall be presented in a manner that is compatible with the online platform developed by the JRC for data issues[1].

ToR 9. To provide a synoptic overview of: (i) the fishery; (ii) the most recent state of the stock (spawning stock biomass, stock biomass, recruits, and exploitation level by fishing gear); (iii) the source of data and methods and; (iv) the management advice, including MSY value, range of values and conservation reference points.

ToR 10. To provide detailed maps at NUTS 2 level and related table of correspondence with relevant spatial coordinates, of:

- The recurrent areas of juveniles' aggregations

  a) 1st-year juveniles;
  b) juveniles equal to or smaller than the minimum conservation reference size

- The recurrent spawning aggregations areas

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[1] Castro Ribeiro C. (2015) Fisheries Data Collection Framework - The DCF Reporting and Implementation Cycles and the Data End-user Feedback, JRC Technical report.

Table I – List of suggested stocks to be assessed by the EWG 17-09.

Area	Common name	Scientific name
GSA 5-6-7	Anchovy	*Engraulis encrasicolus*
GSA 5-6-7	Sardine	*Sardina pilchardus*
GSA 1-5-6-7	Atlantic horse mackerel	*Trachurus trachurus*
GSA 9-10-11	Anchovy	*Engraulis encrasicolus*
GSA 9-10-11	Sardine	*Sardina pilchardus*
GSA 9-10-11	Atlantic horse mackerel	*Trachurus trachurus*
GSA 17-18	Anchovy	*Engraulis encrasicolus*
GSA 17-18	Sardine	*Sardina pilchardus*
GSA 17-18-19-20	Atlantic horse mackerel	*Trachurus trachurus*
GSA 22-23	Anchovy	*Engraulis encrasicolus*
GSA 22-23	Sardine	*Sardina pilchardus*

NOTE: The joint assessments have been proposed on the basis of STOCKMED and management needs. However, these suggestions can be modified according to experts' knowledge and to the most recent scientific information.

The fish stocks highlighted in **red** will be subject to some preliminary work on the proposed GSA areas combinations. Ideally, ad-hoc contracts will be carried out during the first semester of 2017 and then presented/discussed at the EWG on methodological issues.

Guidance for the preparation of the final report

SECTION 1.5	**FISHERIES**	**Landings** Total landings/year * Landings/fishing gear/year * Landings /fishing gear/year/size structure Landings /fishing gear/year/age structure **Discards** Total discards/year * Discards/fishing gear/year * Discards/fishing gear/year/size structure Discards/fishing gear/year/age structure **Fishing effort** Fishing effort (GT*days at sea)/year * Fishing effort (GT*days at sea)/fishing gear/year * Fishing effort (Days at sea)/year * Fishing effort (Days at sea)/fishing gear/year *
SECTION 1.6	**SCIENTIFIC SURVEYS**	Abundance index/year Abundance index/year/size structure Abundance index/year/age structure Biomass index/year Biomass index/year/size structure Biomass index/year/age structure
SECTION 1.7	**STOCK ASSESSMENT**	**Results** * Fishing mortality Fishing mortality/fishing gear Recruitment SSB TB **Reference points** * F_{MSY}, F_{upper} and F_{lower} B_{MSY}, B_{lim}, B_{pa} **Predictions** * *For the different scenarios,* Fishing mortality Fishing mortality/fishing gear Catches Catches/fishing gear Fishing effort/fishing gear SSB

* *Please, provide these variables at least in numerical values and where appropriate also with figures.*