

STECF
EXPERT WORKING GROUP EWG 21-15

Stock assessments in the Mediterranean Sea 2021 – (Adriatic and Ionian Seas)

Date: 18-22 October 2021

Venue: Virtual Meeting

Chair: John Simmonds

DG MARE focal persons: Chato Osio (MARE D1)

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 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 compilation of the STECF stock assessment database (<https://stecf.jrc.ec.europa.eu/dd/medbs/ram>)

STECF 17-07¹ defined methodological guidelines to ensure standardized practices for the preparation of stock assessment input data. STECF 21-02² implemented data quality checks and cleaning to stabilize the time series. EWG 21-15 should adhere to these recommendations from STECF 17-07 and used data prepared in STECF 21-02.

For the stocks given in Annex I, the EWG 21-15 is requested:

ToR 1. Data preparation for the stock assessments:

¹ https://stecf.jrc.ec.europa.eu/documents/43805/1691180/STECF+17-07+-+Methods+for+stock+assessments+in+MED_JRCxxx.pdf

² <https://stecf.jrc.ec.europa.eu/documents/43805/2817637/STECF+21-02+-+Methods+supporting+MED+stock+assessment.pdf/2c6ed3f8-7119-47ec-be1f-29c63d3fd6f4>

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.
2. To compile and provide complete sets of annual data on landings and discards for the longest time series available up to and including 2020, on the basis of the STECF 21-02 results. This should be presented by fishing gear as well as by size/age structure.
3. For GSA 17&18 to compile and provide complete sets of annual data on fishing effort for the longest time series available up to and including 2020, based on the FDI database for the recent part and from prior Mediterranean & Black Sea Data calls for the older part. 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/Country, vessel length and fishing gear. Data shall be the most detailed possible to support the implementation a fishing effort management regime.
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 2020 by GSA and Country.

ToR 2. 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. Where a benchmark has been performed by GFCM (Hake GSA 17-18, Sole GSA 17, Hake GSA 19) and the stock object is available, the benchmark should be the basis of the updated assessment. In absence of the stock object and to for robustness testing, other statistical catch at age models may be fitted.

ToR 3. For the stock of Norway lobster in the Adriatic Sea, in view of the assessment at Adriatic level being considered not precautionary by GFCM WGSAD 2020, explore fishing mortality levels and stock status based on a whole Adriatic assessment vs sub-areas. The following approach should be undertaken:

1. As in prior EWGs, update the SPICT assessment to give overall (GSA 17-18) stock assessment which will reflect total and overall exploitation.
2. Explore local trends with the MEDITS biomass indices in 4 areas: Pomo/Jabuka Pit, Ancona , Kverner and GAS 18. Evaluate if trends are different in different areas.

3. Perform assessment by areas, based on length/age from MEDITS. If also catches could be split by area, fit statistical catch at age models and reconcile with overall SPiCT assessment as check.

ToR 4. To estimate candidate MSY point-value 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 5. Using the report structure developed in 2018 (EWG 18-12), 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 FMSY value, conservation and biomass reference points and effort levels.

For stock under the 2019 GFCM demersal MAP (GFCM/43/2019/5) and marked by (^) in Annex I, provide a summary table showing the progress already made in the transition towards MSY and the F and catch advice for 2022 to reach Fmsy by 2026. For the other stocks provide a short term forecast to reach MSY in 2022.

ToR 6. In line with ToR 5, produce the F and catch advice for 2023 for the fleets listed below to reach Fmsy by 2026, while accounting of a linear reduction of the fishing effort of 7% for OTB and 3% TBB in 2022:

1. LLS gear targeting Mediterranean hake in GSA 17-18.
2. GNS, GTR, DRB and OTB gear targeting common sole in GSA 17.

ToR 7. To ensure that all unresolved data transmission issues encountered prior to and during the EWG meeting are reported on line via the Data Transmission Monitoring Tool (DTMT) available at <https://datacollection.jrc.ec.europa.eu/web/dcf/dtmt>. Guidance on precisely what should be inserted in the DTMT, log-on credentials and access rights will be provided separately by the STECF Secretariat focal point for the EWG.

Table I – List of suggested stocks to be assessed by the EWG 21-15.

	Area	Common name	Scientific name
1	GSA 17-18*	Hake [^]	<i>Merluccius merluccius</i>
2	GSA 17-18	Red mullet [^]	<i>Mullus barbatus</i>
3	GSA 17-18	Norway lobster [^]	<i>Nephrops norvegicus</i>
4	GSA 17-18-19	Deep-water rose shrimp [^]	<i>Parapenaeus longirostris</i>
5	GSA 17-18**	Common cuttlefish	<i>Sepia officinalis</i>
6	GSA 17*	Sole [^]	<i>Solea vulgaris</i>
7	GSA 17-18**	Spottail mantis shrimp	<i>Squilla mantis</i>
8	GSA 18-19-20**	Giant red shrimp	<i>Aristaeomorpha foliacea</i>
9	GSA 19*	Hake	<i>Merluccius merluccius</i>
10	GSA 19	Red mullet	<i>Mullus barbatus</i>

[^] Stocks under GFCM Demersal Plan (GFCM/43/2019/5)

* Stock with a GFCM benchmark

** Stock boundaries to be defined on the basis of expert knowledge

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.