STECF
EXPERT WORKING GROUP EWG 24-10

concerning the stock assessments in the Western Mediterranean Sea

2 September – 8 September 2024, ***Ispra, Italy / hybrid***

Chairs: Alessandro Ligas – Alessandro Mannini
DG MARE focal points: Anne-Cécile Dragon, Chato Osio

The EWG report would be adopted during a mini-plenary on 17-18 October 2024 for a publication by 23 October if possible and 31 October at the latest.

TERMS OF REFERENCE

For the stocks given in Table 2, the group 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 including spawning grounds and seasonality as well as 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 2023, including length frequency distribution over time and, where possible, including estimates from recreational fisheries landings.

ToR 3. 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. To assist with development of management plans, give preference to models that allow estimation of uncertainty, in line with the recommendations of STECF EWG 17-07. Special attention should be paid to:

- Stocks listed in Table 2 without an analytical assessment to attempt fitting one
- Hake stocks partial fishing mortality estimation in EMU 1 and 2 in order to estimate the partial-F by gear and GSA , in particular if updated length based landings have been made available via the 2024 Med&BS Data Call and these data incorporated into the updated assessments.
- Changes in historical time series of landings for stocks where data was revised to better determine the origin of catches (for example ARS and ARA in GSA 8-11)
- Taking into account the issue of 2022 MEDITS missing data in GSAs 9-10-11 in order to find a standard solution, coherent across assessments from EWG 23-09, EWG 23-11, EWG 24-10 and EWG 24-12 that will allow an estimation of the stocks parameters for 2022 and 2023.

ToR 4. Based on the work developed in STECF EWG 24-02, to compute the conservation reference points (i.e. Bpa and Blim) and the FMSY point value (Fmax for the stocks in Type 1 group (e.g., HKE1567, HKE891011, NEP6) or other appropriate proxy (i.e., F0.1), compared to the ones estimated by previous EWGs. 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. As discussed during PLEN 24-02, in addition to the formal three yearly evaluation of biomass reference points proposed by PLEN 22-03, the EWG should update the F reference points (FMSY and ranges) produced by EWG 24-02, needed for the MAP implementation: Fmax for type 1 stocks and F0.1 for all the others. If the 2024 hake stocks or any other stock show being above Bpa, then ranges of F could be estimated and the EWG could use the FMSY ranges estimated by EWG 24-02.

ToR 5. To provide short and medium term forecasts of spawning stock biomass, stock biomass and catches. The forecasts shall include different management scenarios, including: the status quo fishing mortality and target in line with FMSY ranges identified according to Table 1 or other appropriate proxy for 2025. If the stock is considered to be being fished above FMSY provide an F and catch option consistent with the achievement of MSY in 2025. Also where the stock is considered to be below B_{LIM} and/ or B_{PA} provide catch options to restore rapidly SSB above B_{PA}, following Art 6 of the West Med MAP and the methodology adopted for other EU sea-basins
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Table 1 Criteria for the identification of the most vulnerable stock and the use of Fmsy ranges level in line with Art 4 and 6 of the West Med MAP

West MED MAP Fmsy ranges provisions	***Points to be checked by EWG***
Which is the most vulnerable stock? Which EMU and effort group does it belong to?	*Most vulnerable stock might change or present spatial mismatch.*
Effort may be set above the Fmsy range if all concerned stocks are above Bpa (Art 4(5))? *-If **NO** Fupper cannot be used* *-If **YES**, conditions a,b,c could apply in particular c ("in order to limit variations in maximum allowable fishing effort between consecutive years to not more than 20%.")*	*Currently in EMU 1 HKE is most depleted but if NEP 6 became most depleted it could conflict with the EMU Fmsy range*
Is the most vulnerable stock below Bpa (Art 6(1))? *Is the most vulnerable stocks below Blim (Art 6(2))?*	*6(1).Where scientific advice shows that the spawning stock biomass of any of the stocks concerned is below BPA, all appropriate remedial measures shall be taken to ensure the rapid return of the stocks concerned to levels above those capable of producing MSY. In particular, notwithstanding Article 4(3), maximum allowable fishing effort shall be set at levels consistent with a fishing mortality that is reduced within the range of FMSY for the most vulnerable stock, taking into account the decrease in biomass.* *6(2).Where scientific advice shows that the spawning stock biomass of any of the stocks concerned is below BLIM, further remedial measures shall be taken to ensure the rapid return of the stocks concerned to levels above those capable of producing MSY. In particular,*

	notwithstanding Article 4(3), such remedial measures may include suspending the targeted fishery for the stocks concerned and the adequate reduction of the maximum allowable fishing effort.

ToR 6. 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 in 2024. Identify further research studies and data collection which would be required for improved fish stock assessments.

ToR 7. To ensure that all unresolved data transmission issues related to the stocks 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.

ToR 8. 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 stocks (spawning stock biomass, stock biomass, recruits and exploitation level relative to Fmsy, and by fishing gear, if possible including relevant types of trawlers, longliners and netters); (iii) the source of data and methods and; (iv) the management advice taking into account stock biomass using e.g. the ICES control rule, including FMSY value, range of values and conservation reference points. Provide a summary table showing the progress already made in the transition towards MSY and the F and catch advice for 2025 to reach and maintain Fmsy.

Table 2– List of suggested stocks to be assessed by the EWG 24-10.

Area	**Common name**	**Scientific name**
GSA 1-5-6-7	Hake	*Merluccius merluccius*
GSA 1	Deep-water rose shrimp	*Parapenaeus longirostris*
GSA 5-6-7	Deep-water rose shrimp	*Parapenaeus longirostris*
GSA 1	Red mullet	*Mullus barbatus*
GSA 5	Striped red mullet	*Mullus surmuletus*
GSA 6	Red mullet	*Mullus barbatus*
GSA 7	Red mullet	*Mullus barbatus*
GSA 5	Norway lobster	*Nephrops norvegicus*
GSA 6	Norway lobster	*Nephrops norvegicus*
GSA 8-9-10-11	Hake	*Merluccius merluccius*
GSA 8-9-10-11	Deep-water rose shrimp	*Parapenaeus longirostris*
GSA 9	Red mullet	*Mullus barbatus*
GSA 10	Red mullet	*Mullus barbatus*
GSA 9	Norway lobster	*Nephrops norvegicus*
GSA 11	Norway lobster	*Nephrops norvegicus*
GSA 1-2	Blue and red shrimp	*Aristeus antennatus*
GSA 5	Blue and red shrimp	*Aristeus antennatus*
GSA 6-7	Blue and red shrimp	*Aristeus antennatus*
GSA 8-9-10-11	Giant red shrimp*	*Aristaeomorpha foliacea*
GSA 8-9-10-11	Blue and red shrimp*	*Aristeus antennatus*

***EWG to check historical landings against the Med&BS DCF data call from 2024 where the origin of catches has been revised for certain catches/years**