



GFCM - Subregional Committee for the Eastern
and Central Med. (18-22 March 2019)



Common contents SRC-CM and SRC-EM

Deep water red shrimp - Relevant recommendations (Annexes):

GFCM/42/2018/3, **MAP** for sustainable **trawl fisheries** targeting for **Giant red shrimp** *Aristaeomorpha foliacea* and **Blue and Red shrimp** *Aristeus antennatus* in Levant Sea (GSAs 24-25-26-27)

GFCM/42/2018/4, **MAP** for sustainable **trawl fisheries** targeting for **Giant red shrimp** *Aristaeomorpha foliacea* and **Blue and Red shrimp** *Aristeus antennatus* in Ionian Sea (GSAs 19-20-21)

- Relevant ongoing project: Eastmed to update the existing *Background Technical Document in Support of the Management Plan for bottom trawl fisheries for deep-water blue and red shrimp, Aristeus antennatus, and the giant red shrimp, Aristaemorpha foliacea, in the Eastern-Central Med (GSA 12 – 16, 19 – 27)*;
- Provision of minimum set of elements for CPCs to present **national fleet development plans** for deep water red shrimp fisheries (ref. GFCM/42/2018/3 and GFCM/42/2018/4).

Formulation of advice

- Committees agreed on three basic concepts:
 - I. the need for **assessments to be based on official data** provided by countries on fishing activities;
 - II. the importance of maintaining and preserving the **independence of scientific experts** to decide on the scientific data and assumptions to be used in the assessment, and
 - III. the requirement **to fully report the use of the different data sources** and analyses undertaken leading to the final proposed advice on stock status.

Mid-term strategy activities

- SRC-EM and SRC-CM agreed on the importance of: a subregional monitoring plan for **NIS (Non Indigenous Species)**, as well as on the implementation of **surveys at sea, socioeconomic surveys, observers on board** and the roadmap towards the **adaptation to climate change**.

Working Group on Marine Protected Areas (WGMPA)

- Support to the proposal of creation of a **geodatabase** of scientific evidence on the presence and distribution of **Vulnerable Marine Ecosystems (VMEs)**;
- Need to use **scientific data (fishery-independent)** to advance on the identification, mapping and assessment of VME indicator and to couple them with fishery-dependent data towards constituting the basis for proposals for future management measures.

Advice on other issues of relevance to the SAC

- **Stock boundaries:** Strong support to the work proposed in the EU-Project *“Study on Advancing fisheries assessment and management advice in the Mediterranean by aligning biological and management units of priority species”* (led by Maria Teresa Spedicato): The Committees agreed to investigate concrete ways on how non-EU countries could contribute to and participate in the project.

COMMON TOPICS OF PROPOSED WORKPLAN

- Provide advice on the state of deep-water red shrimps, including through the organization of the **Joint EastMed/MedSudMed/GFCM** data preparation meeting;
- Advance on the definition of **deep-water red shrimp fishing grounds**;
- Review the updated Background Technical Document in Support of the Management Plan for bottom trawl fisheries for deep-water blue and red shrimp, *Aristeus antennatus*, and the giant red

shrimp, *Aristaomorpha foliacea*, in the Eastern-Central Mediterranean (GSA 12 – 16, 19 – 27), by the 2020 SRC-EM and SRC-CM;

- **increasing the coverage of stock assessment for priority species;**
- Compile information on the **presence, abundance and distribution of Non-Indigenous Species;**
- Compile information on **VME indicators** in the eastern Mediterranean towards populating the GFCM VME geodatabase.



Subregional Committee for the Eastern Med. (SRC-EM) - FAO HQ, Rome, 18 – 19 March 2019

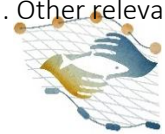
[Link to: Status of Stocks in the Eastern Med](#)

Deep water red shrimp

- Two options for **Spatial units**: i) four separate units: GSAs 19-21, GSAs 24-27, GSAs 22-23 and GSAs 12-16, and ii) all GSAs (12-27) together: need to work towards finding methods suited to the different assumptions;
- **Important differences in data availability** in different GSAs within the eastern-central area of the Med: minimum common information should be made comparable;
- **Data availability** and related outcomes:
 - **Inability of WGSAD** (Working group on Stock Assessment Demersals) **to formulate** quantitative **advice on stock status** based on scientific grounds;
 - SRC-EM discussed the basis for the provision of **precautionary advice** on stock status: Outcomes of an analysis of CPUE data for a restricted number of GSAs, the Committee noticed a decrease in CPUE over the years in some GSAs (shortcomings and weaknesses of these data);
 - On a precautionary basis and pending more quantitative advice, **the information supports the need to ensure that fishing effort and/or capacity are not increased for this fishery.**
- The SRC-EM discussed the usefulness of model-derived information on the occurrence of the target species based on survey and environmental data: **need for these models to be validated** before use.

Working Group SSF

Priorities of **SSF RPOA** (Regional Plan of Action) attached as reviewed by SRC-EM and SRC-CM. Other relevant issues:



- enhancing of available data on SSF in order to assess the situation of these fisheries;
- identification of the main species being targeted by SSF (also priority species?);
- assessment of recreational fishery and interactions with SSF;
- application of SSF characterization matrix, with a view to producing a comparative analysis and a subregional characterization;
- importance of bottom up approaches for managing SSF, as well as the good example of management of Gokova Bay (ecosystem approach to fisheries management): need of a dedicated session.

Round sardinella - Benchmark planned in 2020.

PROPOSED WORKPLAN

- support to the implementation of relevant regional activities in the Eastern Mediterranean, such as **surveys at sea and bycatch monitoring** programme;
- Organize data preparation and **benchmark sessions** for European **hake, round sardinella and lizardfish**;
- Apply the fleet characterization matrix in all countries of the subregion;
- Hold a **dedicated session on SSF** to contribute to the effective implementation of the RPOA-SSF.



Subregional Committee for the Central Med (SRC-CM) FAO HQ, Rome, Italy, 21-22 March 2019

[Link to: Status of Stocks in the Central Med](#)

Deep water red shrimp

- SRC-CM agreed on the proposed ToRs for the **next Joint EastMed/MedSudMed/GFCM** data preparation meeting (September 2019): possibility of using the data to identify potential **EFH**;
- Considering the **inability of Working Group on stock assessment demersals** to formulate quantitative advice on stock status, additional suggestions to supporting the need to ensure, on a **precautionary basis**, that fishing mortality is not increased:
 - I. implementation of a **minimum landing size**;
 - II. implementation of a **minimum mesh size** (fisheries targeting *A. antennatus* and *A. foliacea*): difficult implementation on those fisheries that do not only target *A. antennatus* and *A. foliacea* but that also target a variety of demersal species.
- the Committee highlighted the importance of extending precautionary management measures to GSAs 12-16, where there are indications of a decreasing CPUE and the resources could be under stress;
- main issues on available data: shortcomings and ***A. antennatus* and *A. foliacea* are not always separated** in the catches and therefore catches by these species are not reported.

Mid-term strategy activities

The SRC-CM acknowledged Tunisia's continued interest on the recreational fisheries pilot study and expressed its hope that the work could be launched shortly.

Working Group SSF

- Data were being collected to support the application of the matrix for characterizing fisheries through the socio-economic survey in Tunisia;
- SRC-CM also reviewed the attached framework for monitoring RPOA-SSF, in particular: need to prioritize short term actions, need to improve understanding of the interactions between SSF and other fishing and aquaculture activities, climate change and NIS were topics of particular interest to for SSF in the subregion, with particular focus on blue crab in Tunisia.



WGMPA

SRC-CM recalled the need to advance in the identification and protection of **Essential Fish Habitats (EFH) in the Strait of Sicily**, in particular in relation to **European hake**: empirical confirmation of previous model results is required.

Advice on the status of stocks

Need to increase the number of assessments of small pelagic species in the central Mediterranean.

Advice on other issues of relevance to the SAC

- The SRC-CM welcomed the analysis of socio-economic characteristics of the trawl fishing sector in northern Tunisia (ppt by Yessine Ben Arfa) ;
- The SRC-CM noted the presence of several endangered species of elasmobranchs in fisheries off Tunisia, as highlighted by ongoing studies of longline fisheries in the area: some of the species mentioned, including shortfin mako shark (*Isurus oxyrinchus*), were protected by existing GFCM recommendations (need of management measures);
- The SRC-CM noted the exponential increase in the biomass of blue crab (*Portunus segnis*) in the Gulf of Gabès (ppt by Olfa Ben Abdallah), reflected in pilot studies as well as in the catches of Tunisian trammel

net fisheries: potential negative consequences to the fishery and/or ecosystem. Further studies were suggested;

- the ongoing work on selectivity of the mixed fisheries targeting European hake and deep-water rose shrimp (Fishing Technology) should be extended to deeper areas (North of the Tunisian coast);
- Regional marking of passive gear used by vessels smaller than 15 m should also be a priority;
- Need to work towards an adaptation plan on climate change.

PROPOSED WORKPLAN

- Support to the implementation of relevant regional activities in the Central Mediterranean, such as **surveys at sea, socio-economic surveys** and the discards and incidental catches of vulnerable species monitoring programme;
- Invite countries to share information on ongoing activities related to the monitoring and/or management of **blue crab**;
- Develop a **value chain** study to better understand the opportunities for marketing of **blue crab**;
- Organize data preparation and benchmark sessions for European hake, prepare and present **updated assessment** for Dolphinfish, Red coral, Red mullet in GSAs 12-14, 15 and 16, Deep water rose shrimp in GSAs 12-16, Sardine in GSA 16 and Anchovy in GSA 16;
- Advance towards the identification of nursery areas in the Ionian Sea for deep-water blue and red shrimp, *Aristeus antennatus*, and the giant red shrimp, *Aristaomorpha foliacea*, and also on the nursery areas of European hake and deep-water rose shrimp in the Strait of Sicily;
- Advance on selectivity studies, including for deep water red shrimp in the eastern and central Mediterranean.

Status of Eastern Mediterranean stocks from the Working Groups on stock assessment

GSA	Species	Method	Fcurr	Funi	Ratio	Stock status	Scientific advice	WGSAD comments
25	<i>Pagellus erythrinus</i>	SPiCT	0.24	0.47	0.51	Sustainably exploited	Do not increase fishing mortality	Different approaches tested (e.g. LIME, CMSY): all provided consistent results
27	<i>Pagellus erythrinus</i>	LCA (VIT)	0.61	0.37	1.60	In overexpl.	Reduce fishing mortality	Endorsement the ban on bottom-trawling within 1.5 nautical miles of the coast and shallower than 50m, pushed fishing effort further offshore reducing fishing pressure on this species
27	<i>Lithognathus mormyrus</i>	LCA (VIT)	-	-	-	In overexpl.	Reduce fishing mortality	Despite 3 years of data, sampling coverage was considered insufficient in 2017. Qualitative advice provided
26	<i>Mullus surmuletus</i>	LCA (VIT)	0.77	0.32	2.38	In overexpl.	Reduce fishing mortality	Six years of data were available, from 2011 to 2014, 2016-2017. The last three years were used to provide advice.
26	<i>Metapenaeus stebbingi</i>	LCA (VIT)	2.54	0.89	2.86	In overexpl.	Reduce fishing mortality	A separable VPA was performed to support the results of VIT analysis: results were consistent

- **Red mullet, *Mullus barbatus*** in GSA 26: Preliminary stock assessment;
- **Lizardfish, *Saurida undusquamis*** in GSA 27: Preliminary – Benchmark foreseen in 2019/2020;
- **European hake: demersal species suffering from the highest fishing mortality** - immediate reduction of fishing mortality;
- **Deep-water red shrimp** in Eastern Med: still in progress.
- **Anchovy** in GSA 22: Sustain. Exploited. Advice: to evaluate potential fisheries opportunities;
- **Sardine** in GSA 22: In overexpl. Advice: reduce fishing mortality;
- Round sardinella in GSA 26-27 (***Sardinella aurita***): preliminary results.

Status of Central Mediterranean stocks from the Working Groups on stock assessment

GSA	Species	Stock status	Advice	WGSAD comments
12-16	<i>Merluccius merluccius</i>	In overexploitation, relative low biomass	Reduce fishing mortality	Update.Slicing by sex suggested
12-14	<i>Mullus barbatus</i>	In overexploitation, relative high biomass	Reduce fishing mortality	See benchmark assessment report
15	<i>Mullus barbatus</i>	In (low) overexpl., relative low biomass	Reduce fishing mortality	See benchmark assessment report
16	<i>Mullus barbatus</i>	In sustainable exploitation, relative interm./high biomass	Maintain the current level of fishing mortality	See benchmark assessment report
19	<i>Mullus barbatus</i>	In low overexpl., relative intermediate biomass	Reduce fishing mortality	See benchmark assessment report
20	<i>Mullus barbatus</i>	Sustainably exploited, absolute high biomass	Maintain the current level of fishing mortality	New assessment: different runs provided consistent results
12-16	<i>Parapenaeus longirostris</i>	In overexploitation, relative high biomass	Reduce fishing mortality and catches of undersized shrimp	Update. Alternative methods will be investigated for the future

- **European hake, *Merluccius merluccius*** in GSA 20: sustainably exploited – preliminary assessment (Benchmark foreseen in 2019/2020)
- **Red mullet, *Mullus barbatus*, benchmark session:** Advice was provided on four stocks: GSAs 12-14 jointly and GSAs 15, 16 and 19 separately. The benchmark agreed on all assumptions on data and on the models to be used for these assessments.
- **European hake: demersal species suffering from the highest fishing mortality** - immediate reduction of fishing mortality;
- **Deep-water red shrimp** in Central Med: still in progress.
- **Anchovy** in GSA 16: preliminary assessment;
- **Sardine** in GSA 16: In overexpl. Advice: reduce fishing mortality.

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