



Food and Agriculture
Organization of the
United Nations



General Fisheries Commission
for the Mediterranean
Commission générale des pêches
pour la Méditerranée

FIRMS

Steering Committee Meeting

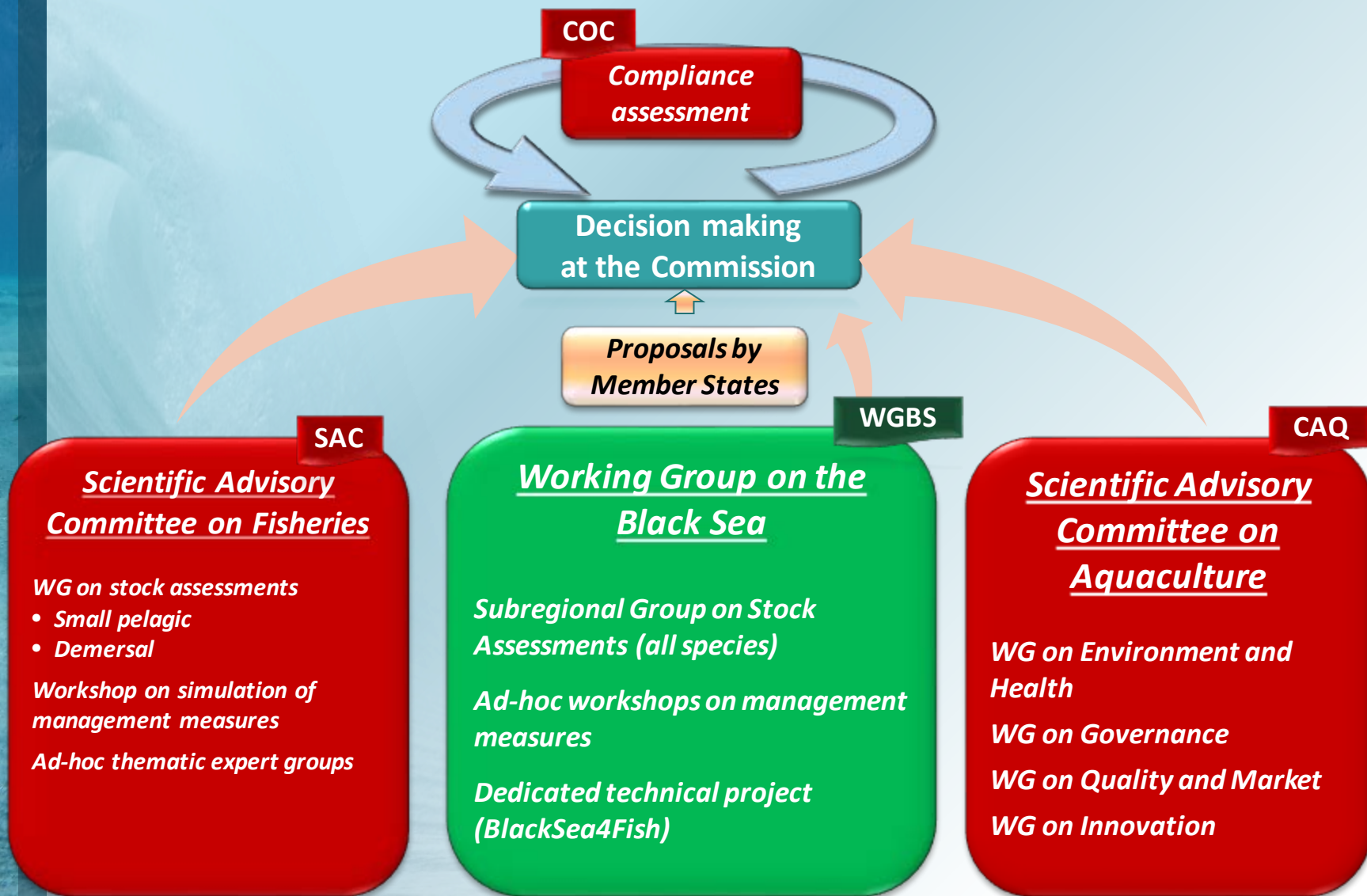
21-24 June 2017

Copenhagen, Denmark

**Reporting on the status of
Mediterranean and Black Sea
stocks: the case of the GFCM**

GFCM Secretariat

Overview of the provision of advice and decision making at the GFCM



Provision of advice on status of stocks

- SAC and WGBS provide a **yearly advice on the status of main commercial stocks**, currently focusing on priority species
- The collection of information on the status of stocks is supported by the **GFCM Data Collection Reference Framework (DCRF)**, that includes a dedicated tool to compile information required to perform (and replicate) stock assessment
- Since 2016, the GFCM publish a **biennial report on the Status of Mediterranean and Black Sea Fisheries (SoMFI)**, that includes an overview of the status of stocks in the region
- In 2017, GFCM CPCs launched a **mid-term strategy towards the sustainability of Mediterranean and Black Sea stocks**, in support of the strategic objectives of the GFCM, as well as international commitments such as SDGs and FAO Strategic Objectives

GFCM Mid-term strategy (2017–2020)

SDG 14 “*Conserve and sustainably use the oceans, seas and marine resources for sustainable development*”

+
FAO SO 2

+
National strategies
+
Ministerial Declaration of Malta



TARGET 5
Enhance capacity-building and cooperation

TARGET 1
Reverse the declining trend of fish stocks through strengthened scientific advice in support of management

Improve, by 2020, the sustainability of Mediterranean and Black Sea fisheries

TARGET 2
Support livelihoods for coastal communities through sustainable small-scale fisheries

TARGET 4
Minimize and mitigate unwanted interactions between fisheries and marine ecosystems and environment

TARGET 3
Curb IUU fishing through a regional plan of action

Priority species for SAC and WGBS

The approach also includes a list of priority species for which advice should be sought

	Western Mediterranean	Central Mediterranean	Adriatic Sea	Eastern Mediterranean	Black Sea	
Pelagic species	<i>Engraulis encrasicolus</i>	<i>Engraulis encrasicolus</i>	<i>Engraulis encrasicolus</i>	<i>Engraulis encrasicolus</i>	<i>Engraulis encrasicolus</i>	<i>Trachurus mediterraneus</i>
	<i>Sardina pilchardus</i>	<i>Sardina pilchardus</i>	<i>Sardina pilchardus</i>	<i>Sardinella aurita</i>	<i>Sprattus sprattus</i>	<i>Sarda sarda</i>
Demersal species	<i>Parapenaeus longirostris</i>	<i>Parapenaeus longirostris</i>	<i>Mullus barbatus</i>	<i>Mullus barbatus</i>	<i>Merlangius merlangus</i>	<i>Psetta maxima</i>
	<i>Merluccius merluccius</i>	<i>Merluccius merluccius</i>	<i>Merluccius merluccius</i>	<i>Saurida lessepsianus</i>	<i>Rapana venosa</i>	<i>Mullus barbatus</i>
	<i>Pagellus bogaraveo</i>					
Species of conservation concern	<i>Anguilla anguilla</i>				<i>Squalus acanthias</i>	
	<i>Corallium rubrum</i>					
Invasive species	<i>Pterois miles</i>				<i>Rapana venosa</i>	
	<i>Lagocephalus sceleratus</i>					

GFCM Data Collection Reference Framework (DCRF)

Designed to:

- facilitate the **systematic and standardized transmission of data** by CPCs, so that they can be stored, managed and made available for analysis by the GFCM's different scientific bodies.
- Achieve a **more efficient data collection** programme
- Better integrate data collection and **subregional multiannual management plans**

Data requested per existing GFCM recommendations, information needed to facilitate the work of the SAC in providing advice



Example of yearly advice from the SAC: Overall status of stocks in the Mediterranean

42 stocks discussed, assessment provided for 35 of them

Exploitation status

- 7 sustainably exploited
- 1 ecologically unbalanced with low fishing mortality
- 27 other stocks were outside safe biological limits
- The status of European eel remains critical

Overall, 20% of the stocks assessed in 2016 are considered to be within biologically safe limits while 80% of the stocks are considered to be outside biologically safe limits.

Note: Figures above reflects only the last assessed year, regional indicator still under technical discussion

Example of yearly advice from the WGBS: Overall status of stocks in the Black Sea

Exploitation status

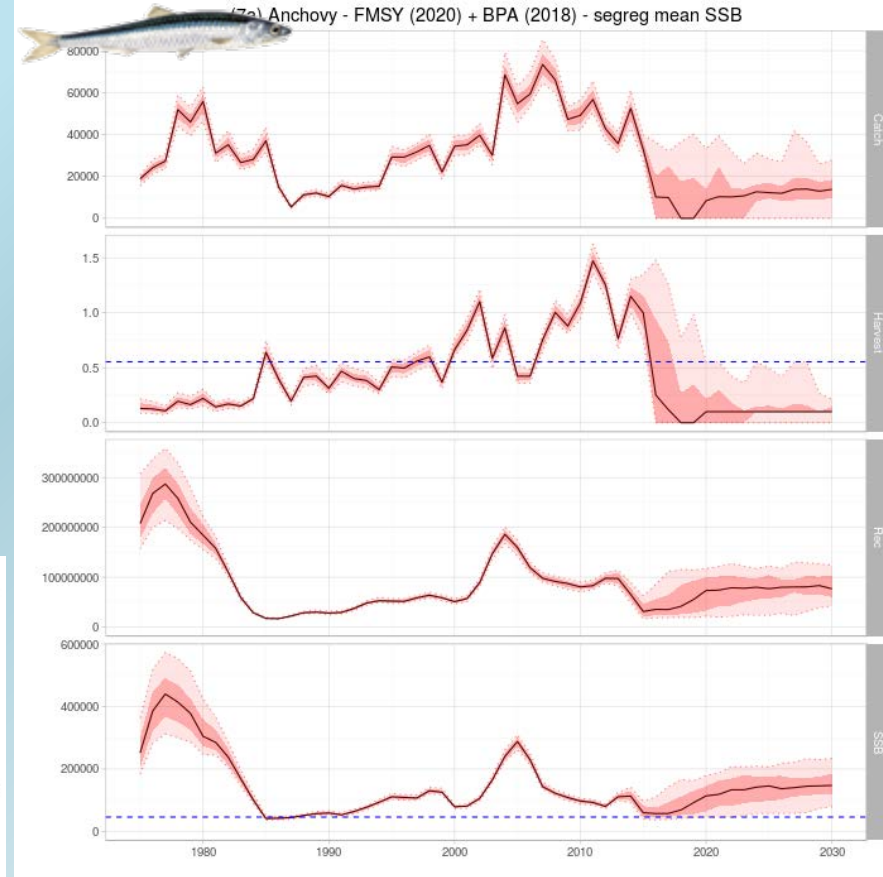
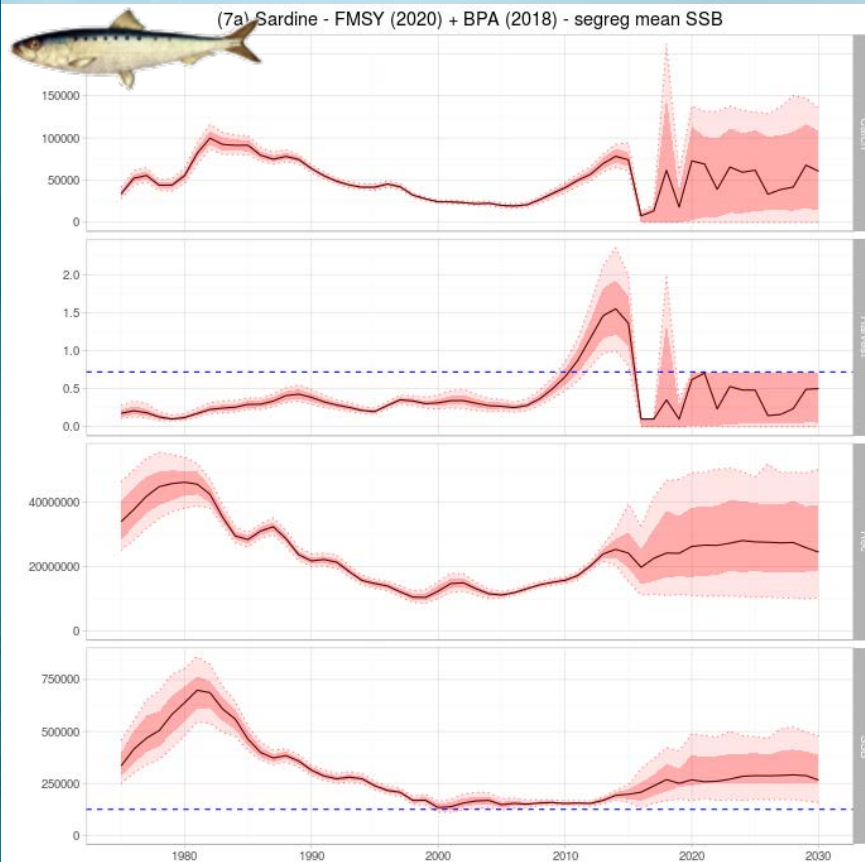
- 1 sustainably exploited (sprat)
- 1 overexploited and in overexploitation (turbot)
- 3 in overexploitation (anchovy, whiting, horse mackerel)
- 1 stock depleted (piked dogfish)

Example of yearly advice on the status of priority species (e.g. hake)

SR	GSA	Catch (tonnes)	Method used	Overexploitation index ($F_{curr}/F_{0.1}$)	Advice
WM	01&03	437	XSA*, FLBRP	8.5	Reduce F
WM	05	110.6	XSA*	7.9	Reduce F
WM	06	3554	XSA*	8	Reduce F
WM	07	1115.7	XSA*	12.8	Reduce F
WM	09	1048	SS3*, FLBRP	4.5	Reduce F
CM	12-16	3958.2	XSA*	7.5	Reduce F
AS	17-18	5378	SS3*	2.3	Reduce F

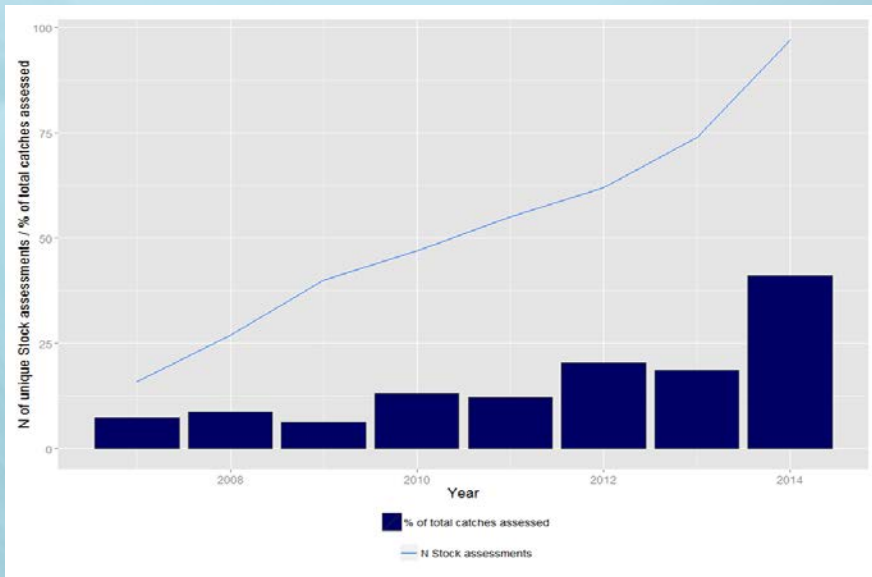
All stocks of hake are considered in overexploitation, on average it continues to have the highest overexploitation rate of all species assessed (average = 7.4 versus 6 in 2015)

Example of yearly advice on expected trends depending on management measures

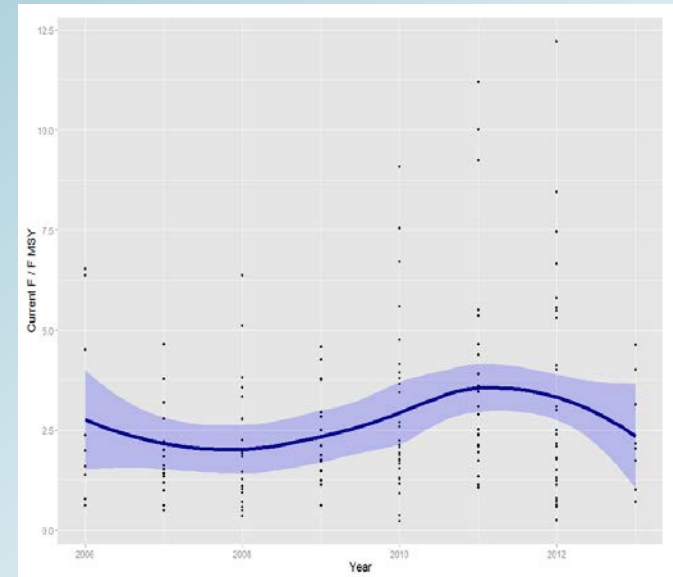


Implementing progressive measures consistent with Rec. GFCM/37/2013/1 but setting the target to achieve Bpa by 2018 and FMSY by 2020 also yielded final SSB above Blim, and predicted average catches to recover for sardine, but not for anchovy

Information provided by the report on the Status of Mediterranean and Black Sea fisheries (SoMFi 2016)

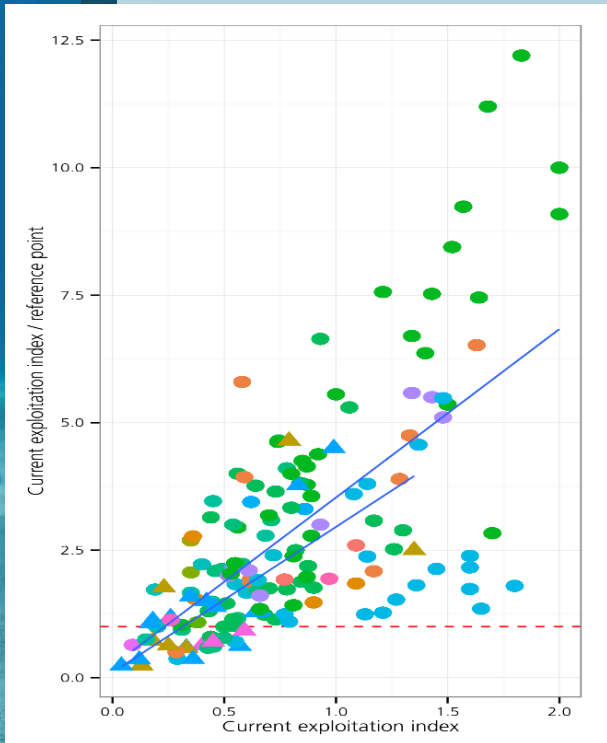


Around 40% of the catches assessed



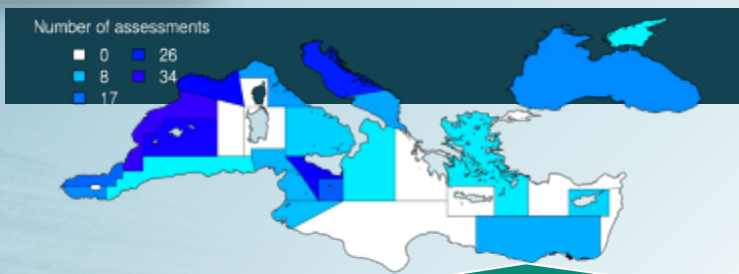
Average overexploitation rates around 2.5

Information provided by the report on the Status of Mediterranean and Black Sea fisheries (SoMFi 2016)



Less than 15% of stocks exploited within safe biological limits

Species	Ratio
Merluccius merluccius	5.2056
Solea solea	3.5571
Psetta maxima	3.3761
Aristeus antennatus	3.1801
Galeus melastomus	2.6923
Mullus barbatus	2.6042
Aristaeomorpha foliacea	2.2601
Saurida undosquamis	2.1600
Parapenaeus longirostris	2.1406
Lophius budegassa	2.0647
Nephrops norvegicus	2.0299
Pagellus erythrinus	1.9529
Squilla mantis	1.9400
Boops boops	1.9084
Mullus surmuletus	1.8698
Pagellus bogaraveo	1.6482
Engraulis encrasicolus	1.5821
Sardina pilchardus	1.3905
Squalus acanthias	1.1304
Merlangius merlangus	1.0857
Sprattus sprattus	0.7500
Spicara smaris	0.6429



Regional differences in knowledge and expertise on stock status

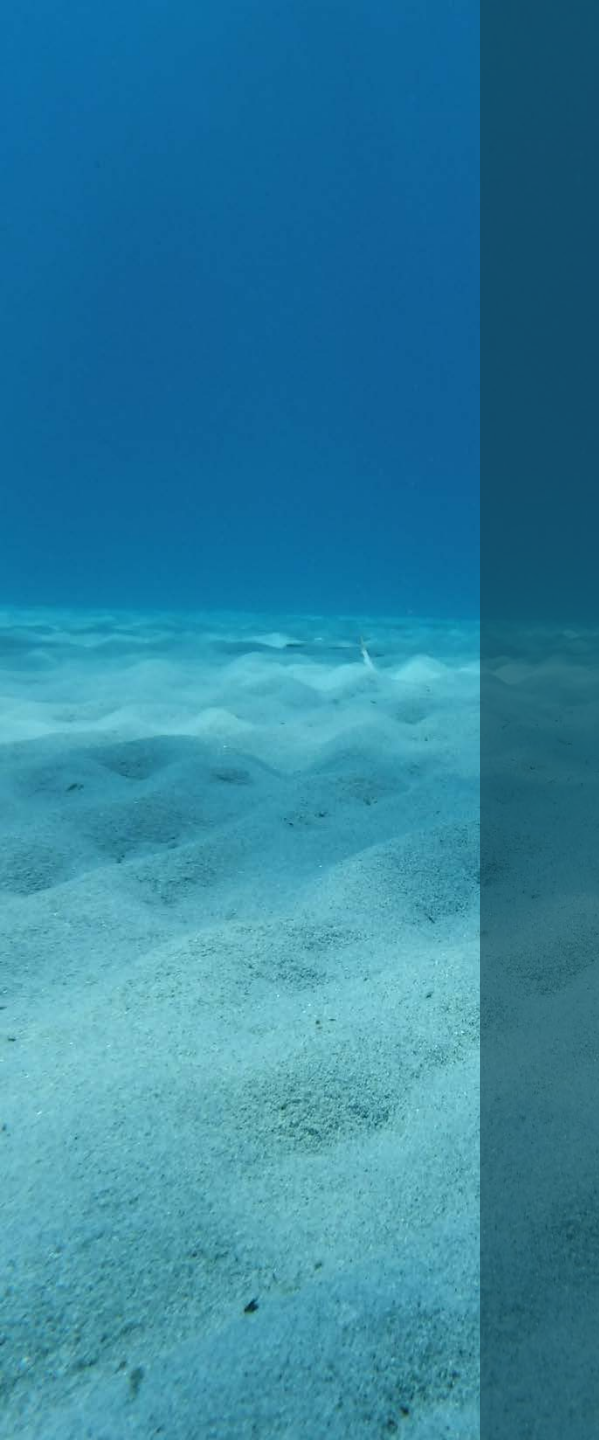
Variable exploitation by species

Contribution of GFCM to regional/global perspectives

- GFCM participates in several initiatives to assess the overall status of Mediterranean and Black seas:
 - UNEnvironment / MAP Ecosystem Approach: Good Environmental Status of the Mediterranean Sea
 - Black Sea Commission: Good Environmental Status of Black Sea
- GFCM SAFs provide information to FIRMS factsheets
 - Up top 40 fact sheets of recent stock assessments uploaded to FIRMS
 - Cross-checking and discussion between FIRMS and GFCM Secretariats to ensure compatibility of advice provided (when differences in criteria found, solution proposed)

Ongoing discussion on the harmonization of methods for the estimation of the status of stocks at regional level

- There is a need to make global assessment compatible with regional views, while maintaining general methods applicable in all regions.
- FAO Fisheries Department and GFCM Secretariat currently addressing discrepancies on the reporting on the state of Mediterranean and Black Sea stocks through SoMFi (regional) and SOFIA (Global)
 - Assessment does not address the same stocks: potential to identify **priority stocks** that should be included in both assessments
 - How to incorporate **information on not assessed stocks**? Based on basic indicators, data limited stock assessment methods, etc.
 - How to aggregate stocks towards a regional view? All stocks given the same importance, or some **weighting** is needed?
 - **Definition of stock boundaries** is different (SOFIA aggregates everything at regional level, SoMFi depends on state of the art of scientific advice to define the limits)



Thank you!
Merci!