



## MEDAC – Focus Group on the Strait of Sicily

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# Lights and shadows on the state of resources and the management of demersal fisheries in the Strait of Sicily

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# The management of the demersal stocks in the Strait of Sicily



The **demersal fisheries** in the Strait of Sicily is regulated by the **Rec. GFCM/45/2022/4** and all subsequent amendments, having as main target Hake and Deep water rose shrimp, and the **EU reg. 266/2026** adopting a **multiannual management plan (MAP)** for bottom trawl fisheries exploiting demersal stocks in the GSA from 12 to 16.

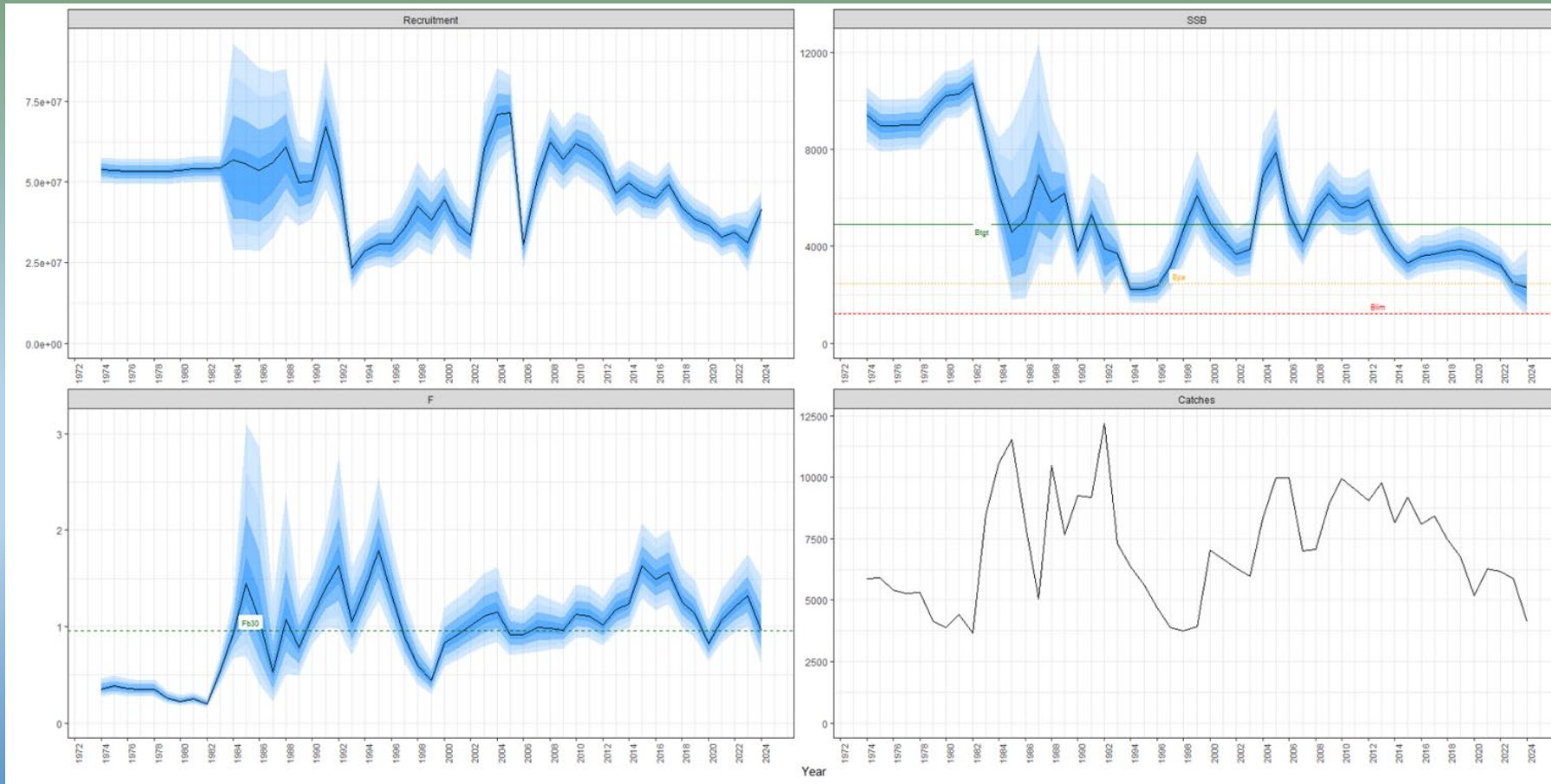
This MAP applies to **bottom trawlers above 10 m LOA** and aims to:

- apply the **precautionary approach** to fisheries management;
- ensure that exploitation levels of key stocks are at the **maximum sustainable yield (MSY)** within **31<sup>st</sup> December 2030**;
- prevent increase in **fishing capacity effort** in relation to year 2021;
- protect essential fish habitats (EFHs) important for the key stocks in the area;
- adopt MCRS for the target species (20 cm TL for HKE and 20 mm CL for DPS)
- contribute to elimination of **discards**, by avoiding and reducing unwanted catches, and by ensuring that all catches are landed;

The MAP consists of two phases:

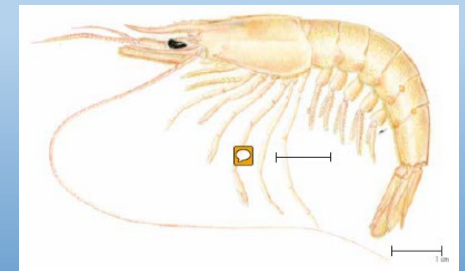
- during the first three years, extended to four years (**transitional phase, 2023-2026**), **effort and catch limits** and **spatial-temporal based measures** will be applied;
- from 2027 onwards, the SAC will **assess the state of stocks** and **update annual measures** and catch limits in line with achieving **F<sub>msy</sub>** and abundances at sea within **safe biological limits**.

# The Deep water rose shrimp is the main target species of bottom trawling in the Strait of Sicily with a catch of 4112 t in 2024



$$\begin{aligned} F_{b30} &= 0.96, \\ B_{30} &= 4909, \\ B_{pa} &= 2454.5, \\ B_{lim} &= 1227.25 \end{aligned}$$

$$\begin{aligned} F/F_{b30} &= 0.99 \\ B/B_{b30} &= 0.47 \\ B/B_{pa} &= 0.94 \\ B/B_{lim} &= 1.88 \end{aligned}$$

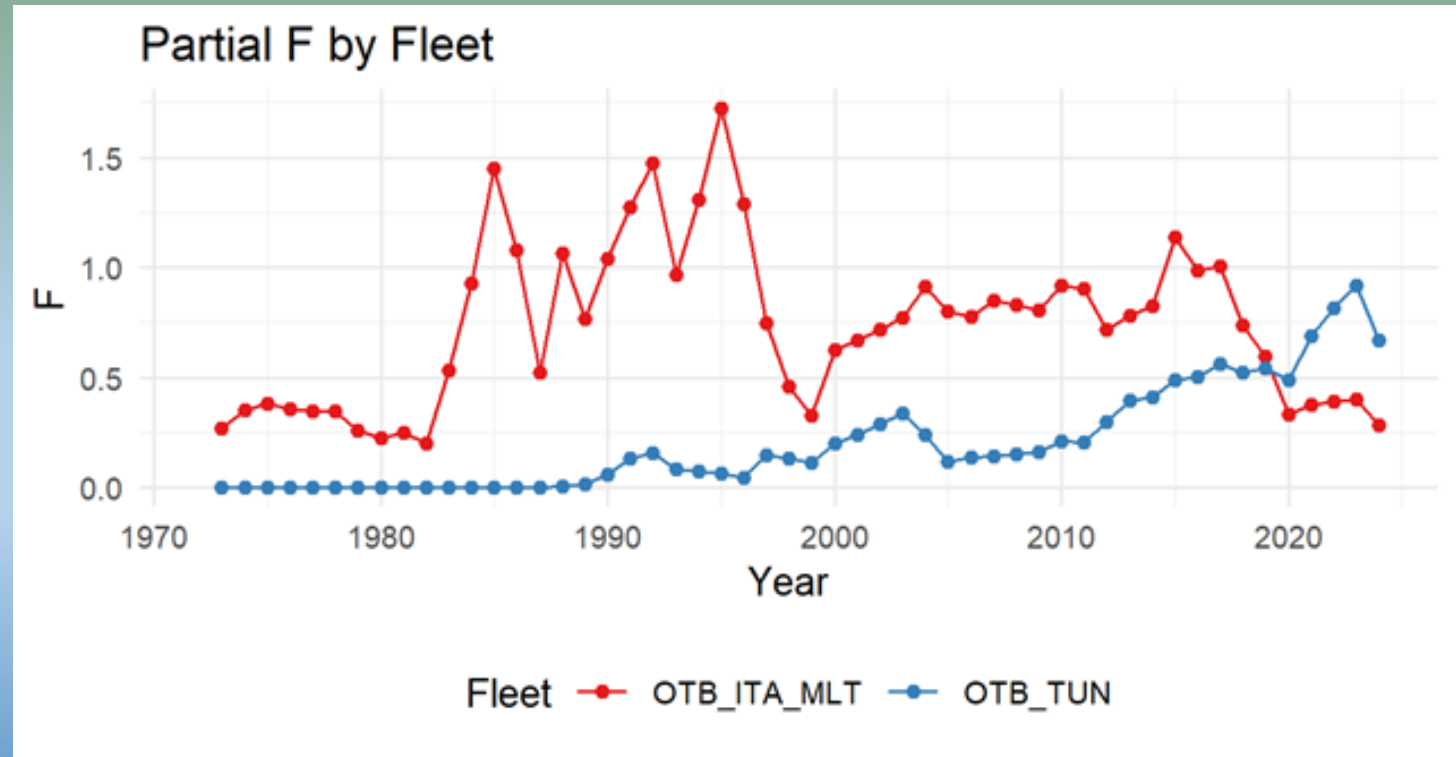


(by Falsone et al., 2025)

**The main management measures...the controlled access to fisheries, and the limit of fishing effort and catch**

**It is evident that in recent years, Tunisian trawlers account for the bulk of fishing mortality**

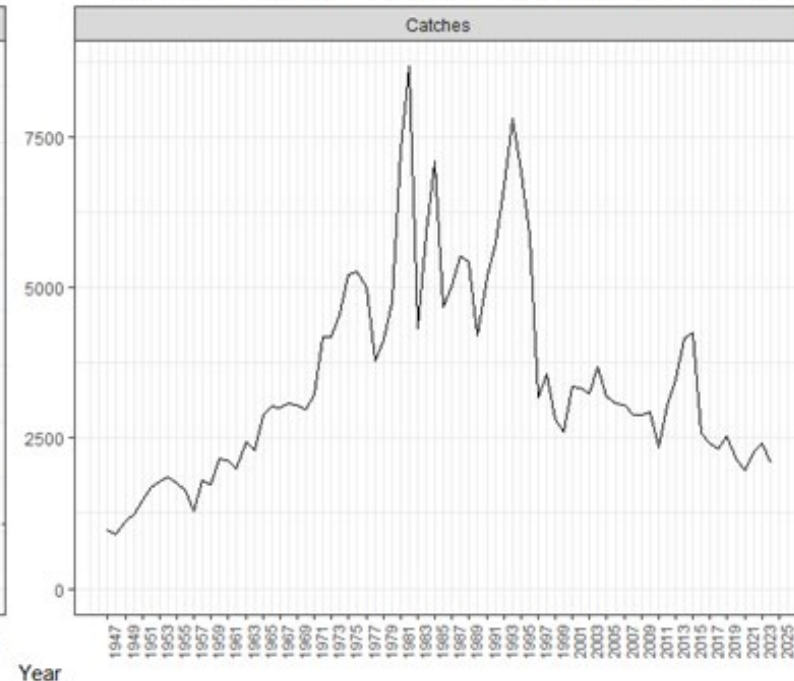
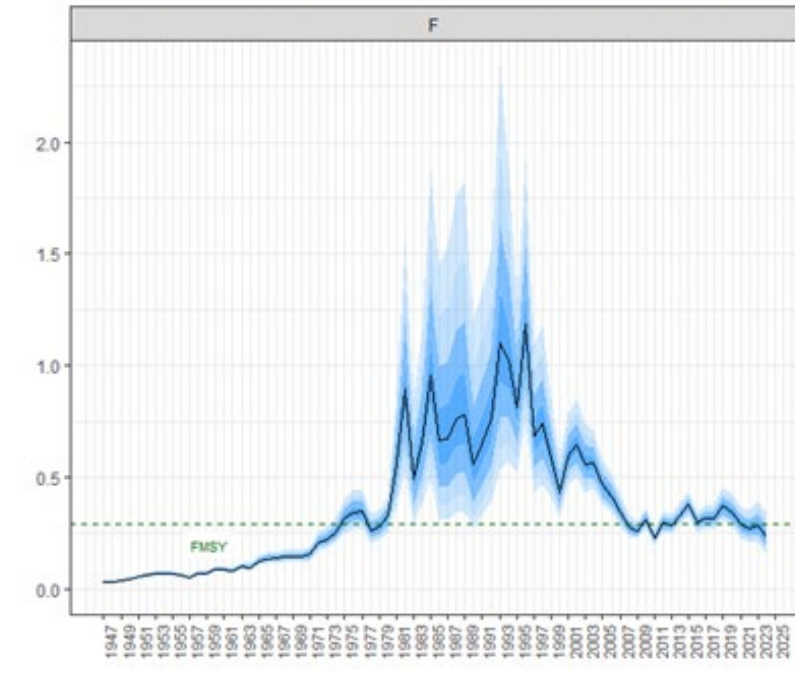
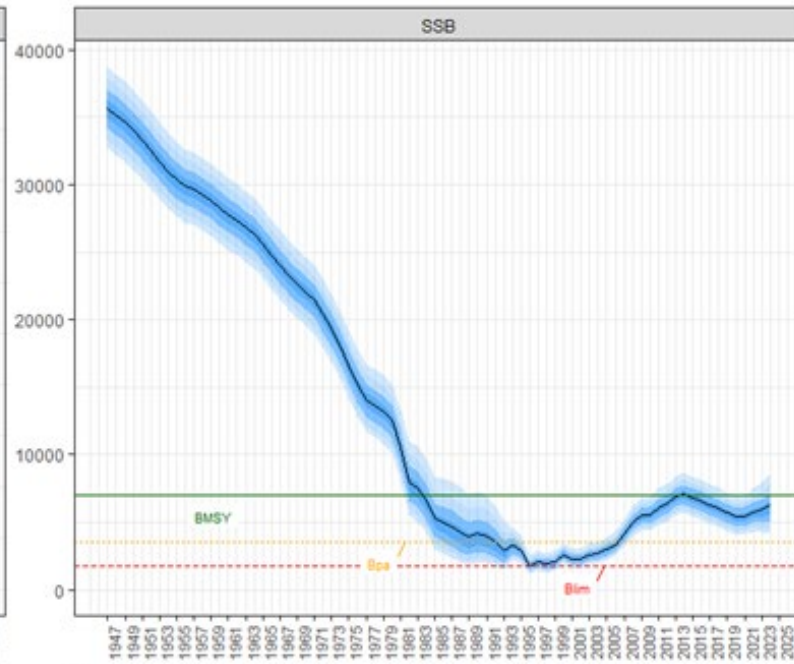
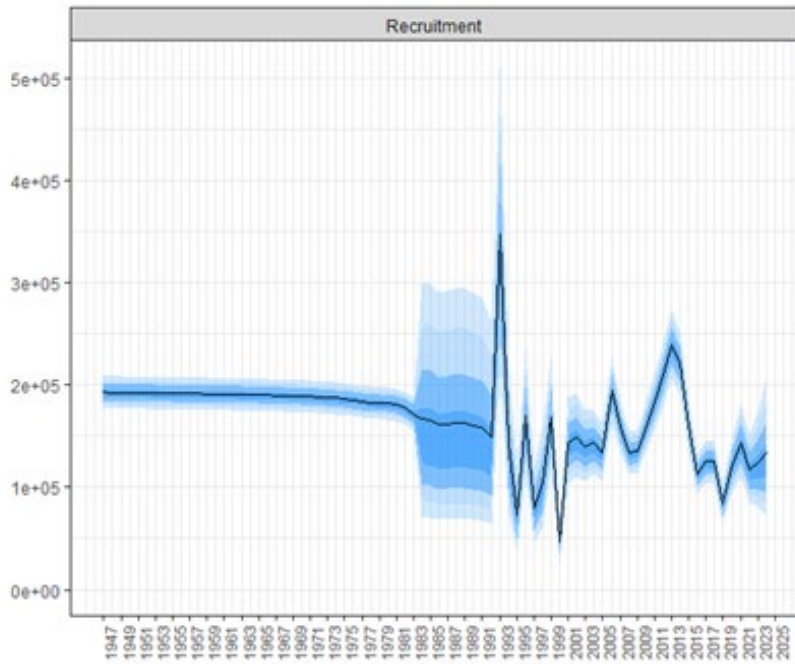
Country	Segments	Fishing days	%
CYP	T12	51	0.07
ITA	T07	90	0.12
ITA	T10	188	0.26
ITA	T11	19366	26.42
ITA	T12	3657	4.99
MLT	T11	338	0.46
MLT	T12	165	0.23
TUN	T11	25994	35.47
TUN	T12	23443	31.99
<b>Total</b>	<b>all segments</b>	<b>73292</b>	<b>100.0</b>



EU 2023	EU 2024	EU 2025	TUN 2023	TUN 2024	TUN 2025
2154	2090	2026	3993	3874	3757

Limits of effort and catch in 2025 was extended to 2026 by Rec. GFCM 48/2025/2

(by Falsone et al., 2025)

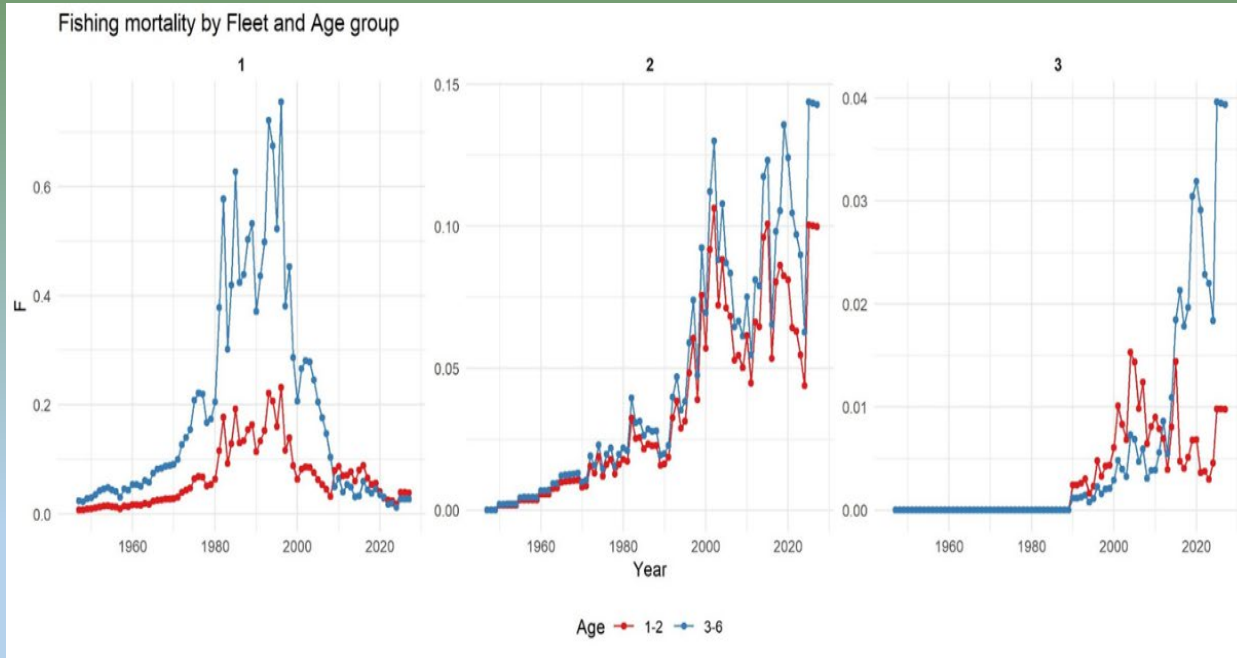


**The case of hake...the main bycatch of the deep water rose shrimp fisheries with a yield of 2076 t in 2024...**

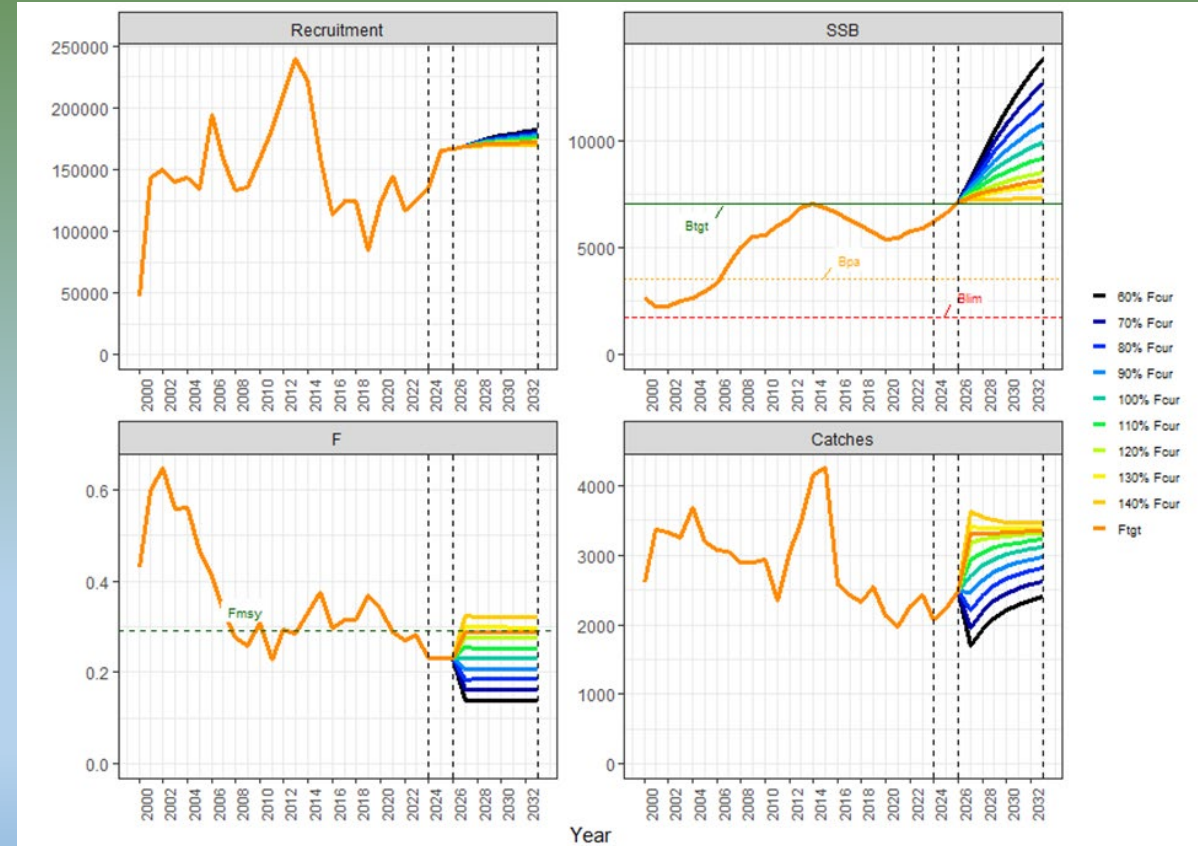
**MSY= 3616 t±201;**  
**SSB<sub>MSY</sub> = 7021 t;**  
**F<sub>MSY</sub> = 0.29**  
**SSB/B<sub>MSY</sub> = 0.89,**  
**F/F<sub>MSY</sub> = 0.79**

(by Falsone et al., 2025)

# The improving of the stock status of hake in the Strait of Sicily



*The trends of fishing mortality by age groups are shown (in red for ages 1-2 and in blue for ages 3-6) for European (1) and Tunisian (2) trawlers, and overall SSF (3).*



*Stochastic forecast conducted applying different fishing mortalities options*

(by Falsone et al., 2025)

# The management of the Deep Water Red Shrimps (DWRS) in the Strait of Sicily (Rec. GFCM/45/2022/5, GFCM/45/2022/4 and EU Reg. 266/2025)

The MAP is aimed at:

- Applying the **precautionary approach** to fisheries management.
- Implement a **regime of vessels authorized to fish DWRS** in the area.
- Ensuring that exploitation levels at **MSY at the latest by December 31, 2030**.
- **Preventing an increase in fishing capacity and effort** in relation to the year 2019
- Adopting the **MCRS of 25 mm CL** for both DWRS species.
- **Protecting EFHs.**
- Contributing to the **elimination of discards and unwanted catches**
- Adjusting the **fishing capacity and catches** to levels of fishing mortalities **consistent with the MSY**, with a view to having **economically viable fleets** and without overexploiting marine biological resources.

The MAP is based on a two-step approach:

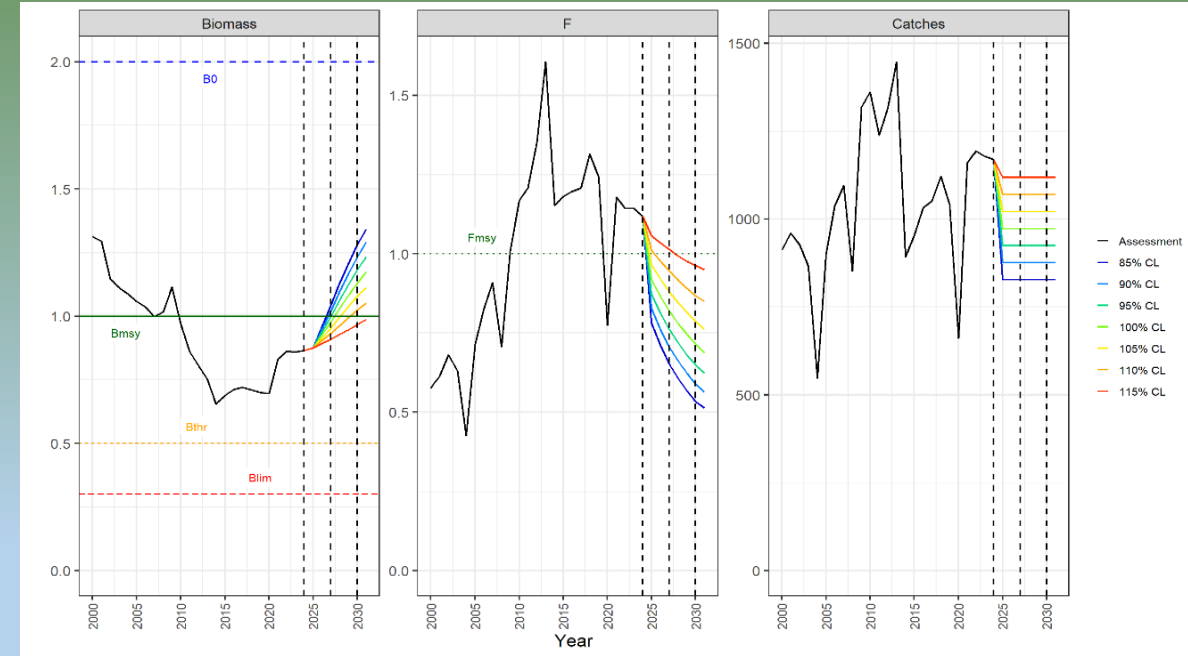
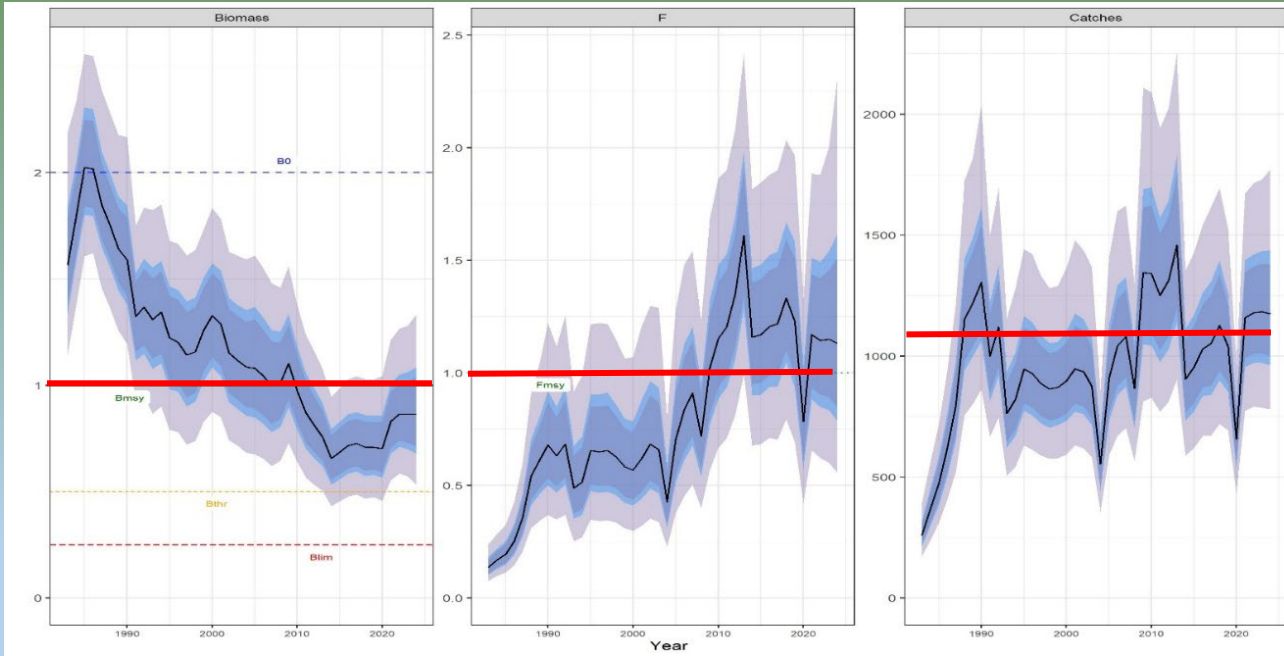
- (a) in the first three years, extended to four years (**2023-2026**), catch limits and technical measures will be applied, and
- (b) **from 2027 onward**, on the basis of new scientific data, the SAC will evaluate the state of the stocks and, on the basis of the Harvest Control Rule (HCR), propose further measures and **advisable yearly catch limits per species**.

Maximum level of catches of Deep Water Red Shrimps (*A. foliacea* and *A. antennatus*) in tons live weight in 2023-2026

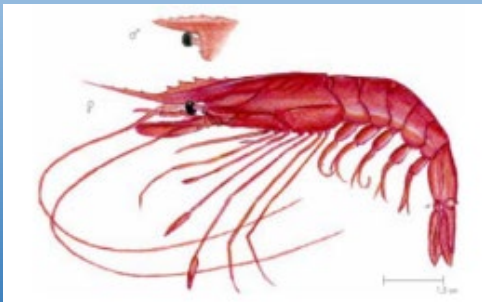
Species	EU	EU	EU	EU	TUN	TUN	TUN	TUN
	2023	2024	2025	2026	2023	2024	2025	2026
<b>Catch limit (Tons) for giant red shrimp (ARS)</b>	908	<b>881</b>	854	829	126	<b>122</b>	119	115
<b>Catch limit (Tons) for blue and red shrimp (ARA)</b>	104	101	98	95	39	38	37	36

Nominal catches (Tons) in 2024:  
**EU 882** (846 IT+36 ML) & **TUN 294** – **Total 1176**

*The case of deep water red shrimps in the Strait of Sicily... a mainly Italian fishery with an overall production (EU+TUN) of about 1176 t in 2024 managed by Recommendation GFCM/45/2022/5*



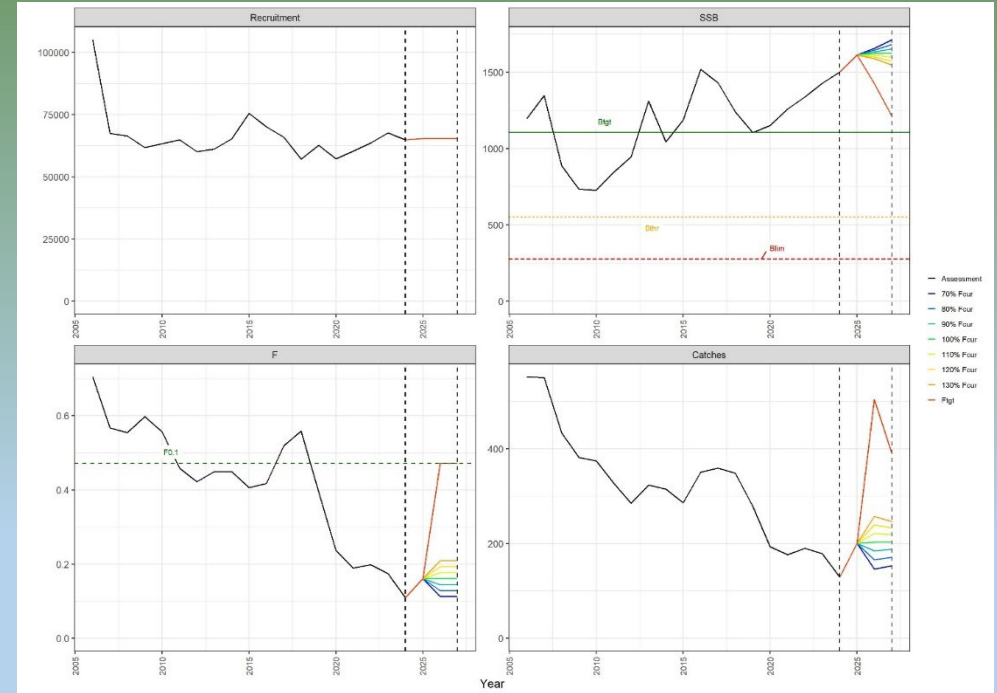
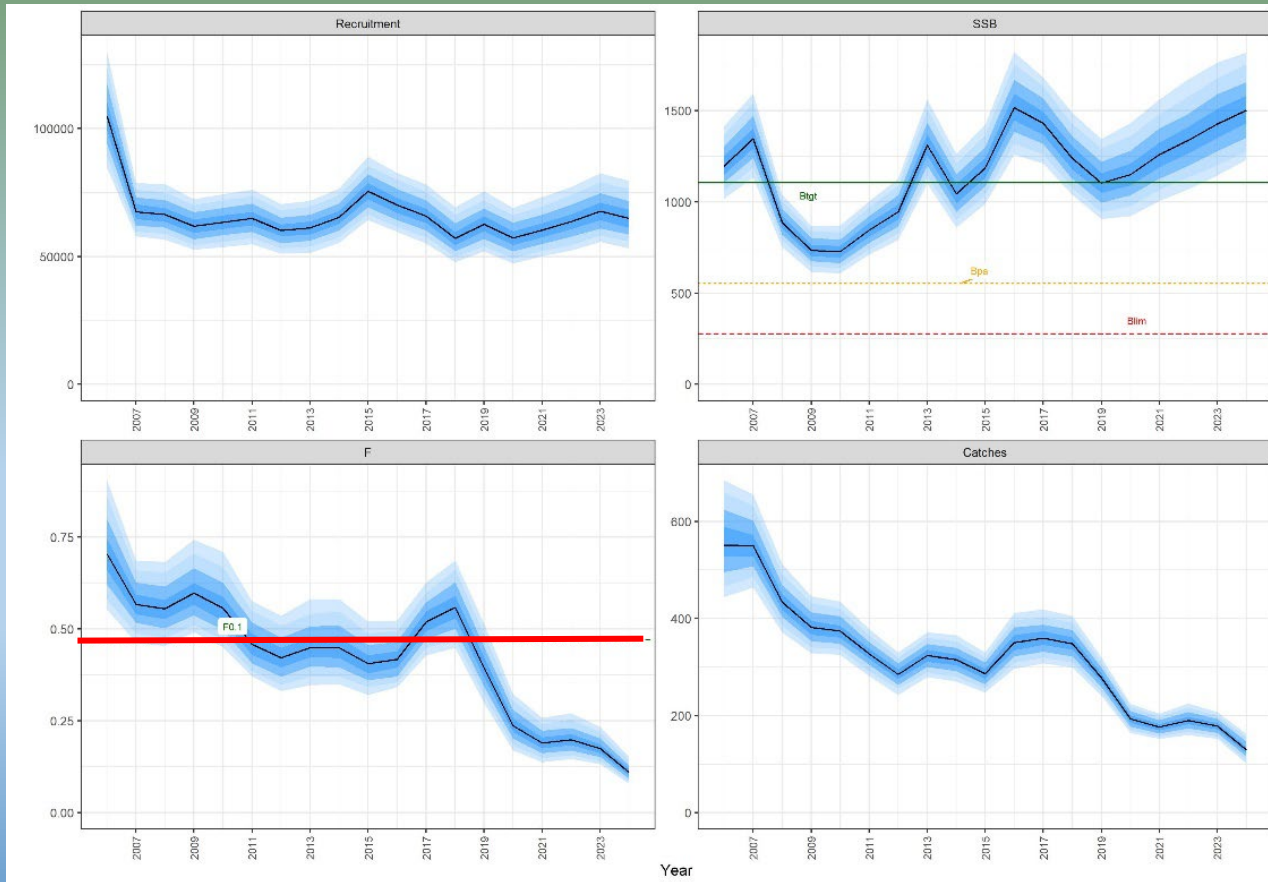
$B/B_{MSY}=0.87$ ,  $F/F_{MSY}=1.14$ ,  $MSY=1200\text{ t} \pm 120\text{ t}$



This is an almost **single-species fishery**, so a combination of **individual catch quotas** together with **technical measures** that reduce the **catch of juveniles** to increase Y/R should be a particularly appropriate management strategy

(by Scannella et al., 2025)

# An example of sustainable Italian fishing...the case of red mullet in GSA 16...a production of about 140 t in 2024...



Red mullet off the southern coast of Sicily (GSA 16) has been fished in a sustainable way since 2018....

- **Nurseries within 3 miles protected from bottom trawling;**
- **Reduction of demand of fish targeted by bottom trawling;**
- **Autumn fishing closures suitable to avoid catching juveniles.**

$B/B_{F_{0.1}}=1.36$ ,  $F/F_{0.1}=0.23$ ,  $F_{0.1}=0.47$ ; (by Scannella et al., 2025)

# *What are the main lights and shadows?*

## **The lights**

- The **progressive improvement** in the status of **demersal resources** in the area (see also FAO, 2025).
- The **reduced number of European vessels** fishing in the area allows fishing mortality to be managed through **technical measures**, avoiding a further reduction in fishing effort (see Lucchetti et al., 2021).
- The adoption of **spatial and temporal closures** by the EU and the GFCM (see Regulation (EU) 266/2026)
- .....

## **The shadows**

- The **uncontrolled fishing capacity and effort of third countries** (see Marsaglia et al., 2024).
- The **lack of FRA off the African coasts** (see Garofalo et al., 2018).
- The absence of clear **ecosystem-based objectives** in the MAPs (see Jarboui et al., 2021);
- **Ambiguities in compiling the list of vessels authorised for DWRS fisheries** that render the effectiveness of the temporal closure invalid (**mixed trawlers targeting DWRS during the closure**).
- **The biological objective** of setting targets for **temporal closures** in DWRS fisheries (Juveniles are better than adults...see Fiorentino, 2024).
- .....

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