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Rebuilding western Mediterranean fisheries:

has the western Mediterranean multiannual plan delivered?

2019–2024

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Suggested citation: Guadagnoli, G. and López, J. (2024). Rebuilding western Mediterranean fisheries: has the western Mediterranean multiannual plan delivered? 2019–2024. Oceana. 28 pp.

DOI number: 10.5281/zenodo.11260869

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Executive Summary

This report explores the impact of the first five years of implementation of the **western Mediterranean multiannual plan** (also known as the 'West Med MAP', hereafter: 'the MAP'), the first European Union fisheries management plan for the conservation and sustainable exploitation of a group of demersal stocks in the western Mediterranean Sea. Over a decade since the adoption of the current Common Fisheries Policy (CFP) basic regulation and nearly five years since the entry into force of the MAP, the EU's management of western Mediterranean fisheries still **falls short of meeting its legal obligations**.

While Oceana acknowledges the substantial decrease in fishing effort driven by the MAP over the course of five years, it is evident that the primary objective of restoring and maintaining populations of harvested species above levels capable of producing maximum sustainable yield (MSY) has not been achieved. Moreover, **there is a high risk that the target fishing mortality will not be reached by the legal deadline of 1 January 2025**. Despite commendable progress in terms of fishing effort reductions, spatial-temporal closures, and selectivity improvements, progress in stock recovery remains sluggish, and the objectives of the MAP remain largely unmet.

The West Med MAP has achieved a remarkable 40% reduction in fishing days over five years, in line with its initial target — yet this does not account for extra fishing days obtained through the compensation mechanism created by the Council of the EU (hereafter: 'the Council'). This reduction, together with the other adopted management measures, is leading to a gradual decline in fishing mortality for most of the stocks. At the same time, fishing mortality remains high, averaging 1.94 times the F_{MSY} value, with **overfishing still affecting 57% of the concerned fish populations**.

This persistent overfishing leads to a grim picture in terms of abundance of fish stocks. Among the fish populations analysed, 46% are critically overexploited, 39% are overexploited, and only 15% have a biomass above sustainable levels. This means **that the MAP's objective has not been met for 85% of the fish populations included in the plan**. Additionally, **abundance levels of three stocks are below the limit reference point (B_{LIM})**, and **four are below the precautionary approach reference point (B_{PA})**.

According to the MAP, the European Commission (hereafter: 'the Commission') and the affected Member States (France, Italy, and Spain) are legally bound to implement emergency measures if one or more stocks fall below B_{LIM}. They must also implement measures to recover stocks whose biomass is below B_{PA} as of 1 January 2025. At the time of writing, no specific remedial measures have been taken to recover the three stocks that are below B_{LIM}.

Overall, the pace of progress falls far short of the urgency demanded by the alarming levels of overexploitation, the critical conservation status of many fish populations, and the legal obligations set forth by the MAP. Immediate action is needed by both the Commission and relevant Member States, to ensure the sustainable harvesting of all concerned fish populations and prevent the collapse of vulnerable stocks. The **pronounced gap between the MAP's objectives and outcomes underscores the necessity for further tailored reductions in fishing days and catch limits**, and the potential **inclusion of new gears** in the provisions, among others. Moreover, a strong emphasis on implementing **effective technical measures** – including selectivity improvements and closure areas – is imperative to comprehensively address ongoing challenges. Furthermore, the prompt adoption of **safeguard measures** is crucial to ensuring the swift recovery of fish populations that are below conservation reference points.

Oceana urges the Commission to consider the findings and recommendations outlined in this report during its evaluation process of the West Med MAP.

- It is crucial that the Commission acknowledge the progress made thus far, while also addressing the persistent challenges in meeting the objectives of the plan.
- Critically, **the MAP needs to be assessed on outcomes, not just actions taken.**
- Oceana also calls upon both the **Commission and Member States** – particularly France, Italy, and Spain – **to take decisive action when setting fishing opportunities for the upcoming years**.
- The goals of ending overfishing and safeguarding marine ecosystems in the western Mediterranean are still a long way off.

1. Overview of the western Mediterranean multiannual plan

1.1. Scope and objectives

Regulation (EU) 2019/1022 establishing a multiannual plan (MAP) for the fisheries exploiting demersal stocks in the western Mediterranean Sea,[i] commonly referred to as the West Med MAP, was officially published on 26 June 2019 and entered into force on 16 July of the same year.

This marked the first time in EU law that a MAP had been introduced for the conservation and sustainable exploitation of a group of demersal stocks in the western Mediterranean Sea. This area encompasses EU waters of France, Italy, and Spain, in the Alboran Sea, the Gulf of Lion, and the Tyrrhenian Sea, including the Balearic archipelago and the islands of Corsica and Sardinia. Such areas are defined by the General Fisheries Commission for the Mediterranean (GFCM) as GFCM geographical subareas (GSAs),[ii] and the MAP covers GSAs 1 to 11 — excluding GSA 4 (Algeria). The GSAs are grouped into EMU1 (Effort Management Unit 1, including GSAs 1, 2, 5, 6, and 7) and EMU2 (Effort Management Unit 2, including GSAs 8-11). More generally, the region encompasses the waters of France, Italy, and Spain (Figure 1.1).

The MAP includes six marine species: blue and red shrimp, deep-water rose shrimp, giant red shrimp, European hake, Norway lobster, and red mullet.

These are all demersal species (i.e. those that live on or close to the seabed).

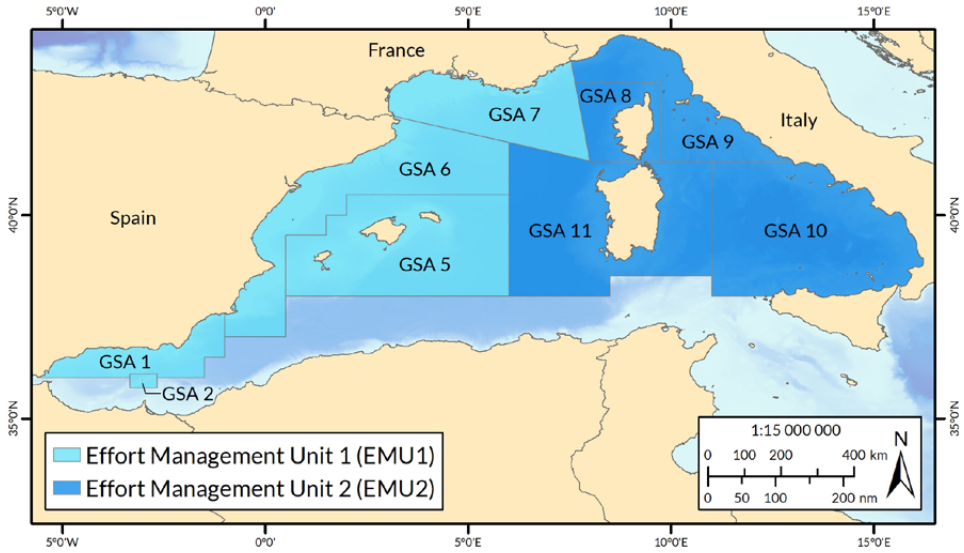
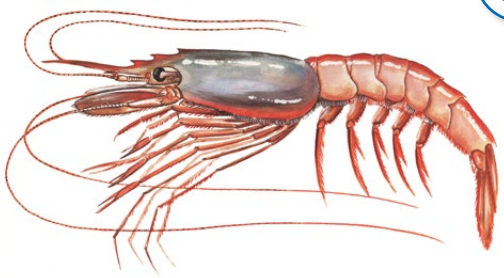


Figure 1.1. Geographical scope of the West Med MAP, by GFCM GSAs.

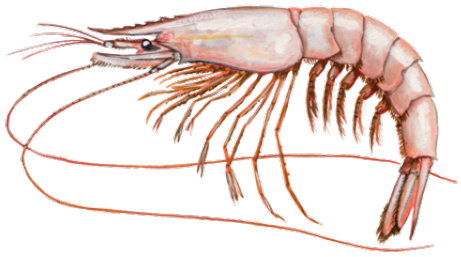
GSAs are grouped by colour into the two Effort Management Units under the plan: EMU1 (1-Northern Alboran Sea, 2-Alboran Island, 5-Balearic Islands, 6-Northern Spain, and 7-Gulf of Lion) and EMU2 (8-Corsica Island, 9-Ligurian and North Tyrrhenian Sea, 10-South Tyrrhenian Sea, and 11-Sardinia Island).

As listed in Article 1 of the MAP, the specific stocks covered are:

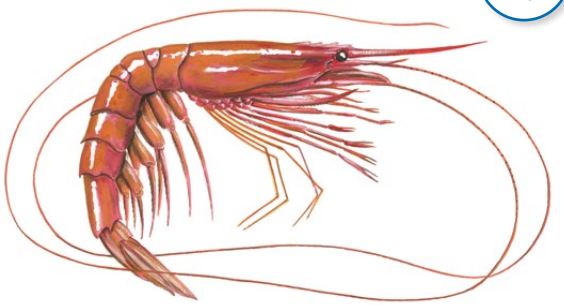
- Blue and red shrimp (*Aristeus antennatus*) in GFCM subareas 1, 5, 6, and 7.



- Deep-water rose shrimp (*Parapenaeus longirostris*) in GFCM subareas 1, 5, 6, and 9-10-11.



- Giant red shrimp (*Aristaeomorpha foliacea*) in GFCM subareas 9-10, and 11.



- European hake (*Merluccius merluccius*) in GFCM subareas 1-5-6-7, and 9-10-11.

- Norway lobster (*Nephrops norvegicus*) in GFCM subareas 5, 6, 9, and 11.

- Red mullet (*Mullus barbatus*) in GFCM subareas 1, 5, 6, 7, 9, 10, and 11.

The MAP also extends to by-catches and to other demersal populations caught in the region for which available data are insufficient. Overall, it considers commercial – and to some extent, recreational – fisheries carried out in EU waters or by EU fishing vessels outside the Union waters in the region of reference.

The main objectives of the MAP (Article 3) are to implement the objectives laid out in previous legislation such as the Common Fisheries Policy (CFP) basic regulation[iii] and the Marine Strategy Framework Directive[iv] (MSFD), among others.

These objectives include:

- Ensuring that the exploitation of marine biological resources restores and maintains populations of harvested species above levels that can produce the maximum sustainable yield[1] (MSY).
- Contributing to the elimination of discards by avoiding and reducing unwanted catches and implementing the landing obligation.
- Applying precautionary and ecosystem-based approaches to fisheries management to ensure that negative impacts of fishing activities on the marine ecosystem are minimised.

1.2. Targets, deadlines, and measures

The MAP sets a clear deadline to achieve the **target fishing mortality (F_{MSY})**, representing the estimated fishing mortality that, with a given fishing pattern and under current average environmental conditions, yields the long-term MSY. Precisely, this target fishing mortality should have been achieved by 2020 where possible, and by 1 January 2025 at the latest (Article 7), and then maintained within the upper and lower F_{MSY} ranges (Article 4). Both the F_{MSY} target and ranges are set based on the best available scientific advice, either by the Scientific, Technical and Economic Committee for Fisheries (STECF), or a similar recognised independent scientific body.

To meet the target fishing mortality, the MAP establishes a fishing effort regime (number of fishing days, limited to 15 hours per fishing day, five fishing days per week, or equivalent) at EU level for all trawls that exploit demersal stocks in the area (four fleet segments: <12 m; 12-18 m; 18-24 m; and >24 m). The MAP foresaw a 10% reduction in fishing days for 2020, except for GSAs where the fishing effort had already been reduced by more than 20% during the 2015-2017 baseline period, and up to a 30% reduction between the second and fifth years of implementation. It is worth mentioning that, although the MAP was first set out to regulate trawlers, since 2021 the Council of the EU (hereafter: 'the Council') has also adopted measures for longliners in the annual Council Regulation setting fishing opportunities for each year ahead.

Since 2022, the annual Council Regulation on fishing opportunities has also established a compensation mechanism.[v] This mechanism allows Member States to grant vessels flying their flags additional fishing days during the reference year, determined as a percentage of the initially approved fishing days. The allocation of fishing days under the compensation mechanism is contingent upon various conditions to be fulfilled by each Member State and vessel.

These conditions, which are categorised as **'technical measures'**, encompass the following:

- Species and size selectivity of fishing gear ('selectivity measures').
- Restrictions or prohibitions on the use of certain fishing gear and fishing activities, either in certain areas or periods, to protect juveniles and spawning aggregations, prevent the catching of fish below the minimum conservation reference size (MCRS) or of non-target species, and/or minimise negative impacts on the ecosystem.
- The fixing of MCRSs for any of the stocks of reference, to ensure the protection of juveniles of marine organisms.

[1] **Note:** MSY is defined in Article 4 of the CFP as "the highest theoretical equilibrium yield that can be continuously taken on average from a stock under existing average environmental conditions without significantly affecting the reproduction process".

To safeguard nursery areas and vulnerable habitats, and to support small-scale fisheries, the coastal zone ought to be regularly reserved for more selective fishing activities. As such, Article 11 of the MAP requires Member States to manage trawling activity through spatial closures, in three ways:

- **General rule:** Prohibition on trawling within six nautical miles from the coast, except in areas deeper than the 100 m isobath, for three months each year (Article 11.1).
- **Derogation:** Alternatively, or in addition to the above rule, Member States may establish other closure areas with a requirement to achieve at least a 20% reduction in catches of juvenile hake (Article 11.2).
- **Additional tool:** Establishment of further closure areas by 17 July 2021, targeting areas with high concentrations of juvenile and/or spawning individuals (Article 11.3).

In response to scenarios where the abundance (i.e. spawning stock biomass) of any of the fish populations concerned falls below specific reference points, the MAP outlines safeguards to be put in place from January 2025 (Article 6). The plan considers two conservation reference points with respect to spawning stock biomass: 'precautionary reference points' (B_{PA}) and 'limit reference points' (B_{LIM}). If the spawning stock biomass is found to be **below B_{PA}**, "all appropriate remedial measures must be taken to ensure the rapid return of stocks to levels above those capable of producing MSY". On the other hand, if scientific advice shows that the spawning stock biomass is **below B_{LIM}**, further remedial measures must be taken.

Such measures include suspending the targeted fishery for the stocks concerned and reducing maximum allowable fishing effort according to the nature, seriousness, duration, and repetition of the situation.

Finally, the MAP provides details concerning the implementation of the landing obligation. It introduces regionalisation provisions to extend and/or amend exemptions for species with demonstrated high survival rates and *de minimis* exemptions (i.e. an exemption allowing a small percentage of the total catch of certain species to be discarded because it is difficult to completely avoid unwanted catches, as detailed in Article 15.5.C) of the CFP).

1.3. Institutional framework

Management measures related to the West Med MAP's implementation are decided every year in December by the Council (in its 'Agrifish' configuration), based on a proposal from the Commission. Thus, the Agrifish Council adopts a Council Regulation each December that establishes the fishing opportunities for the demersal populations listed in the MAP, among other provisions, which come into force in the following year.

The December negotiations on these fishing opportunities, based on a Commission proposal from a few months earlier, involve the three main players whose waters are covered by the plan: the governments of France, Italy, and Spain.

The resulting Council Regulation encompasses:

- A fishing effort regime, fixing the number of fishing days for trawlers and, as of 2021, longliners.
- A compensation mechanism, initiated in 2022, granting additional fishing days for trawlers depending on the number of potential additional conservation measures that the vessels can satisfy.
- Catch limits, established for the first time in 2022 for blue and red shrimp, as well as for giant red shrimp.

According to Articles 16 and 18 of the MAP, the Commission has the power to adopt delegated acts where new scientific advice requires it to do so, for example, by showing a change in the geographical distribution of the stocks concerned or stressing the need to update the list of the stocks included under the West Med MAP. Over the last five years, such delegated acts have mainly served to further specify details of the landing obligation.

Finally, alongside the annual proposal put forward by the Commission, Article 17 states that by 17 July 2024 the Commission shall report to the European Parliament and to the Council on the **results and impact of the multiannual plan on the stocks concerned and, on the fisheries exploiting those stocks**, in particular as regards to the **achievement of the objectives** set out in Article 3.

2. Implementation and outcome

2.1. Measures adopted pursuant to the West Med MAP

The West Med MAP aims to achieve the sustainable exploitation of harvested species, to ultimately recover them to above sustainable levels. A fishing effort regime (based on the number of fishing days) was adopted as the primary tool in the MAP to achieve this objective, alongside other conservation measures. In its evaluation of the fishing effort regime and catch regime for demersal fisheries in the western Mediterranean Sea, the STECF highlighted that "for most considered stocks and fleets, there was no simple relationship between fishing effort and fishing mortality. This suggests that the effectiveness of any fishing effort regulation aiming at achieving a given fishing mortality requires regular monitoring."[vi]

While the Member States implemented a **reduction in fishing days** as foreseen in the MAP, which currently adds up to an overall 40% reduction from 2020 to 2024 (Table 2.1), in 2022 the Council introduced the so-called "compensation mechanism" into the provisions concerning fishing effort for the same year. Specifically, the three Member States concerned are entitled to reclaim a predetermined percentage of allocated fishing days upon satisfying one or more conditions outlined within the annual Council Regulation establishing fishing opportunities for the following year. Currently, information about the percentage reclaimed by each Member State is not easily available and accessible, resulting in a lack of clarity on the actual reduction in fishing days.

Table 2.1. History of reductions in annual fishing days and the compensation mechanism in the West Med MAP.

Year	2020	2021	2022	2023	2024
Reduction in fishing days	10%	7.5%	6%	7%	9.5%
Compensation mechanism	*	*	2% for 1 condition	3.5% for 1 condition	4.5% for 1 condition 5% for 2 conditions 6% for 3 conditions

* The compensation mechanism was applied for the first time in 2022.

Source: Council Regulations fixing the fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Mediterranean and Black Seas for 2020,[vii] 2021,[viii] 2022,[v] 2023,[ix] and 2024.[x]

Alongside the fishing effort regime, and as another means to control fishing mortality, policymakers introduced **catch limits** in the western Mediterranean for the first time in 2022 for blue and red shrimp, as well as for giant red shrimp, in both EMUs.[v] These limits were initially set at 928 tonnes in EMU1 and 259 tonnes in EMU2 for blue and red shrimp, and at 370 tonnes in EMU2 for giant red shrimp (Table 2.2), and have been consistently reduced over time. However, they have not been reduced to the extent required by STECF stock assessments to meet the target mortality rate of F_{MSY}.

Table 2.2. STECF advice and catch limits adopted by the Council for blue and red shrimp and giant red shrimp for the years 2022-2024. Numbers in the table represent weights in tonnes, while percentages in parentheses indicate differences from the previous year's Council decision. There is no percentage for the 2022 Council decision, as it was the first year when the Council adopted catch limits for these stocks.

2022		2023		2024	
STECF advice	**Council decision**	**STECF advice**	**Council decision**	**STECF advice**	**Council decision**
Blue and red shrimp: EMU1: 437 t EMU2: 45 t	**Blue and red shrimp:** EMU1: 928 t EMU2: 259 t	**Blue and red shrimp:** EMU1: 355.3 t EMU2: 145 t	**Blue and red shrimp:** EMU1: 881 t (-5%) EMU2: 252 t (-3%)	**Blue and red shrimp:** EMU1: 341.3 t EMU2: 127 t	**Blue and red shrimp:** EMU1: 838 t (-5%) EMU2: 245 t (-3%)
Giant red shrimp: EMU2: 241 t	**Giant red shrimp:** EMU2: 370 t	**Giant red shrimp:** EMU2: 270 t	**Giant red shrimp:** EMU2: 359 t (-3%)	**Giant red shrimp:** EMU2: 279 t	**Giant red shrimp:** EMU2: 349 t (-3%)

Source: Council Regulations fixing the fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Mediterranean and Black Seas for 2022,[v] 2023,[ix] 2024,[x] and STECF Stock assessments in the western Mediterranean Sea (STECF-21-11;[xi] STECF-22-09;[xii] and STECF 23-09[xiii]).

Member States have also adopted **technical measures**, including selectivity measures, the fixing of minimum conservation reference sizes (MCRS) for the reference stocks, and closure areas, to contribute to the achievement of the MAP's objectives and in the scope of the compensation mechanism. Among the various voluntary selectivity measures adopted, an important one is the increase in mesh size of trawlers to a 45 mm square-mesh codend to reduce catches of juvenile hake, and to 50 mm to reduce catches of juvenile blue and red shrimp and giant red shrimp. Additionally, another noteworthy technical measure is the revision of the MCRS for hake from 20 cm to 26 cm, to better reflect the length at first maturity.[ix]

Concerning closure areas (Table 2.3), in most GSAs in EMU1, France and Spain adopted closed areas under Article 11.2, so the general rule banning trawling within six nautical miles of the coast, except in areas deeper than the 100 m isobath for three months

annually (Article 11.1) was derogated. Additionally, Spain moved forward and designated further closures pursuant to Article 11.3.

In EMU2, while France adopted spatial closures pursuant to Article 11.1 around Corsica, Italy adopted trawling closures under Article 11.2 to pursue the objective of reducing catches of juvenile hake by at least 20%. Important nursery areas for hake are found in GSAs 9, 10 and 11, and Fishery Restricted Areas (FRAs) were adopted by the GFCM to protect Essential Fish Habitats (EFH) and to reduce catches of undersized hake.

Table 2.3. Closure areas in western Mediterranean GSAs related to Article 8 of the MAP. Closure areas covering more than one GSA were assigned to the GSA with which they have the greatest area of overlap. This table does not contain recent closures adopted during 2024.

Member State	GSA	Decree	Time Closing	Fleets	No. Areas	Managed area
Spain	GSA 1	Orden APA/753/2020	Temporal	All	6	40 km²
		Orden APA/1397/2021	Permanent	Trawlers	1	99 km²
		Orden APA/1397/2021	Temporal	Trawlers	1	24 km²
		Orden APA/80/2023	Temporal	Trawlers	2	16951 km²
	GSA 2	Orden APA/753/2020	Permanent	Trawlers	1	<100m depth (133 km²)
		Orden APA/80/2023	Temporal	Trawlers	1	1133 km²
	GSA 5	Orden APA/753/2020	Temporal	All	2	384 km²
		Orden APA/1397/2021	Temporal	Trawlers	3	2577 km²
		Orden APA/799/2022	Temporal	All	2	489 km²
		Orden APA/80/2023	Temporal	Trawlers	4	5758 km²
	GSA 6	Orden APA/753/2020	Temporal	Trawlers	1	374 km²
				All	1	507 km²
			Permanent	Trawlers	1	15 km²
				All	2	60 km²
		Orden APA/1397/2021	Permanent	All	12	239 km²
		Orden APA/799/2022	Temporal	Trawlers	2	1400 km²
			Permanent	Trawlers	2	261 km²
				All	6	160 km²
		Orden APA/80/2023	Temporal	Trawlers	14	26824 km²

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Member State	GSA	Decree	Time Closing	Fleets	No. Areas	Managed area
France	GSA 7	AGRM1936906A	Temporal	Trawlers	2	5200 km²
		AGRM1733988A	Temporal	All	1	626 km²
		AGRM1733988A	Permanent	All	3	130 km²
	GSA 8	AGRM1936906A	Temporal	Trawlers	1	6 miles / 100 m isobath around Corsica
Italy	GSA 9	Decreto direttoriale n. 9045689	Permanent	Towed gears	1	50 km²
	GSA 9	Decreto direttoriale n. 9045689	Permanent	Towed gears	1	107 km²
	GSA 9	Decreto direttoriale n. 9045689	Permanent	Towed gears	1	145 km²
	GSA 10	Decreto direttoriale n. 9045689	Permanent	Towed gears	1	125 km²
	GSA 10	Decreto direttoriale n. 9045689	Permanent	Towed gears	1	150 km²
	GSA 10	Decreto direttoriale n. 9045689	Permanent	Towed gears	1	250 km²
	GSA 10	Decreto direttoriale n. 9045689	Permanent	Towed gears	1	196 km²
	GSA 10	Decreto direttoriale n. 9045689	Permanent	Towed gears	1	188 km²
	GSA 11	Decreto direttoriale n. 9045689	Permanent	Towed gears	1	269 km²
	GSA 11	Decreto direttoriale n. 9045689	Permanent	Towed gears	1	619 km²

Source: Table is extracted from STECF-23-01[xiv] for information on GSAs 1,5,6, and 7, while information on closures in GSAs 8, 9, 10, and 11 is from Oceana elaboration, sourced from the same STECF-23-01 report.[xiv]

2.2. Status of fish populations in the western Mediterranean Sea

Oceana assessed the status of populations of the six demersal species included in the MAP, using data from the latest STECF[xiii] and GFCM[xv] stock assessments, which in turn were based on data from 2022. In total, 22 populations were considered, distributed across nine GFCM geographical subareas (GSAs), as shown in Table 2.4.

Table 2.4. Effort Management Units and their corresponding GFCM geographical subareas.

Effort Management Unit (EMU)	GFCM geographical subarea (GSA)	Name of GSA	Member State
EMU1	1	Northern Alboran Sea	Spain
	2	Alboran Island	Spain
	5	Balearic Islands	Spain
	6	Northern Spain	Spain
	7	Gulf of Lion	France
EMU2	8	Corsica	France
	9	Ligurian Sea and Northern Tyrrhenian Sea	Italy
	10	Southern and Central Tyrrhenian Sea	Italy
	11	Sardinia	Italy

Source: Resolution GFCM/33/2009/2[ii] on the establishment of geographical subareas in the GFCM area of application.

2.2.1 Results: Fishing mortality

Of the 22 populations analysed, only one (Norway lobster in GSA 11) lacked sufficient data to allow fishing mortality to be assessed. Based on the most recent STECF and GFCM data available, Oceana determined that **57% of the remaining 21 populations are overfished** (i.e. $F/F_{MSY} > 1$).

Figure 2.1 and Table 2.5 provide a comprehensive overview of historical fishing mortality trends for the analytical assessed fish stocks. While these trends vary depending on the stock and GSA under consideration, a notable pattern emerges: fishing mortality for most of the populations has clearly decreased since the entry into force of the MAP, a trend that was less evident before that time, regardless of the CFP's requirements. However, despite this decrease, fishing mortality (F/F_{MSY}) remains very high, with an average level of 1.94.

It is crucial to note three exceptions where fishing mortality has increased: deep-water rose shrimp in GSA1 and in EMU2, and red mullet in GSA 6. Given the differences in fishing mortality trends, it is evident that the impact of implemented management measures varies significantly among fish populations.

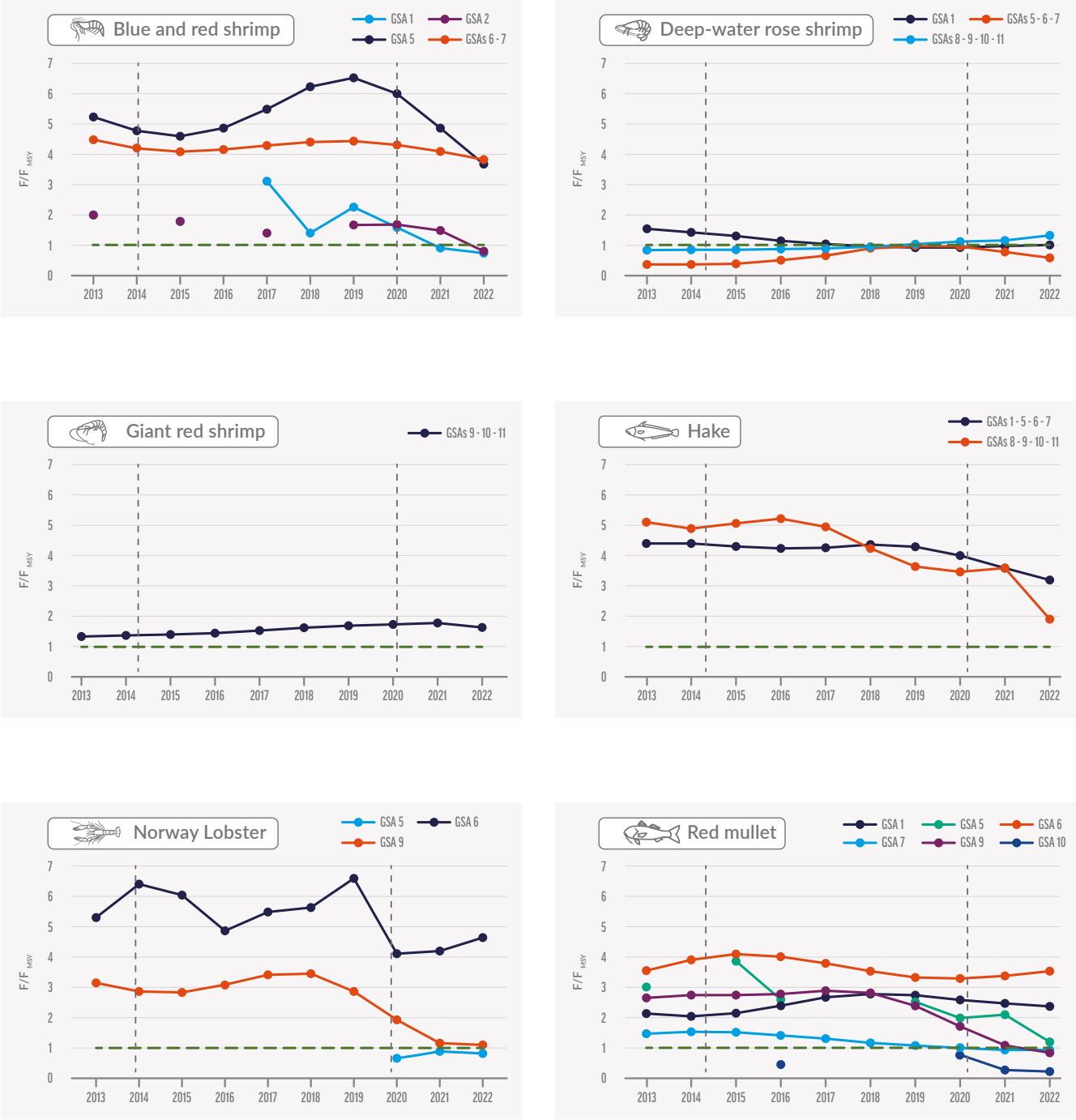

Figure 2.1. Trends in fishing mortality (F/F_{MSY}) for populations under the West Med MAP that have analytical assessments. The horizontal dashed green lines indicate $F/F_{MSY} = 1$. Vertical dashed lines correspond to the entry into force of the CFP (2014) and of the West Med MAP (2020).

Source: STECF 23-09[xiii] and GFCM stock assessments.[xv]

Table 2.5. Changes in fishing mortality (F) for populations under the West Med MAP during the periods between the entry into force of the CFP and the adoption of the West Med MAP (F/F_{MSY} change 2014-2019), and since the adoption of the West Med MAP (F/F_{MSY} change 2019-2022). The last column shows the most recent (2022) estimates of fishing mortality relative to F_{MSY} (F/F_{MSY}).

Species	GSA	F change 2014-2019	F change 2019-2022	F/F_{MSY}
Blue and red shrimp	1◊	*	↓ 66%	0.77
Blue and red shrimp	2◊	*	↓ 52%	0.81
Blue and red shrimp	5	↑ 36%	↓ 43%	3.68
Blue and red shrimp	6-7	↑ 6%	↓ 14%	3.81
Blue and red shrimp	8-9-10-11□	*	*	4.60
Deep-water rose shrimp	1	↓ 35%	↑ 5%	0.96
Deep-water rose shrimp	5-6-7	↑ 198%	↓ 44%	0.55
Deep-water rose shrimp	8-9-10-11	↑ 18%	↑ 33%	1.29
Giant red shrimp	9-10-11	↑ 24%	↓ 3%	1.63
European hake	1-5-6-7	↓ 2%	↓ 25%	3.22
European hake	8-9-10-11	↓ 25%	↓ 45%	3.06
Norway lobster	5◊	*	*	0.88
Norway lobster	6	↑ 3%	↓ 29%	4.65
Norway lobster	9	↓ 1%	↓ 61%	1.13
Norway lobster	11	*	*	*
Red mullet	1	↑ 34%	↓ 13%	2.36
Striped red mullet	5◊	*	↓ 53%	1.18
Red mullet	6	↓ 15%	↑ 6%	3.55
Red mullet	7	↓ 29%	↓ 15%	0.91
Red mullet	9	↓ 12%	↓ 66%	0.82
Red mullet	10◊	↔ 0%	↓ 88%	0.22
Red mullet	11□	*	*	0.66

* Data are missing from all databases.

Source: STECF 23-09[xiii], except where labelled □ (STECF-Adhoc-24-01[xvi]), and ◊ (GFCM stock assessments)[xv].

The stock assessments from STECF and GFCM on the state of exploitation of the demersal fish stocks in the western Mediterranean, in 2022, indicate that most of the 22 populations are in a state of overfishing.
For instance, blue and red shrimp in Corsica, Sardinia, and the Ligurian and Tyrrhenian Seas (GSAs 8-9-10-11), along with Norway lobster in Northern Spain (GSA 6), are fished at **nearly five times the sustainable level**.
Similarly, blue and red shrimp in the Balearic Islands, Northern Spain, and the Gulf of Lion (GSAs 5-6-7), as well as red mullet in Northern Spain (GSA 6), are fished at almost four times the sustainable level.
European hake across the entire region is fished at more than three times what is considered sustainable, while red mullet and striped red mullet in the Northern Alboran Sea and Balearic Islands are fished at over twice the sustainable rate.

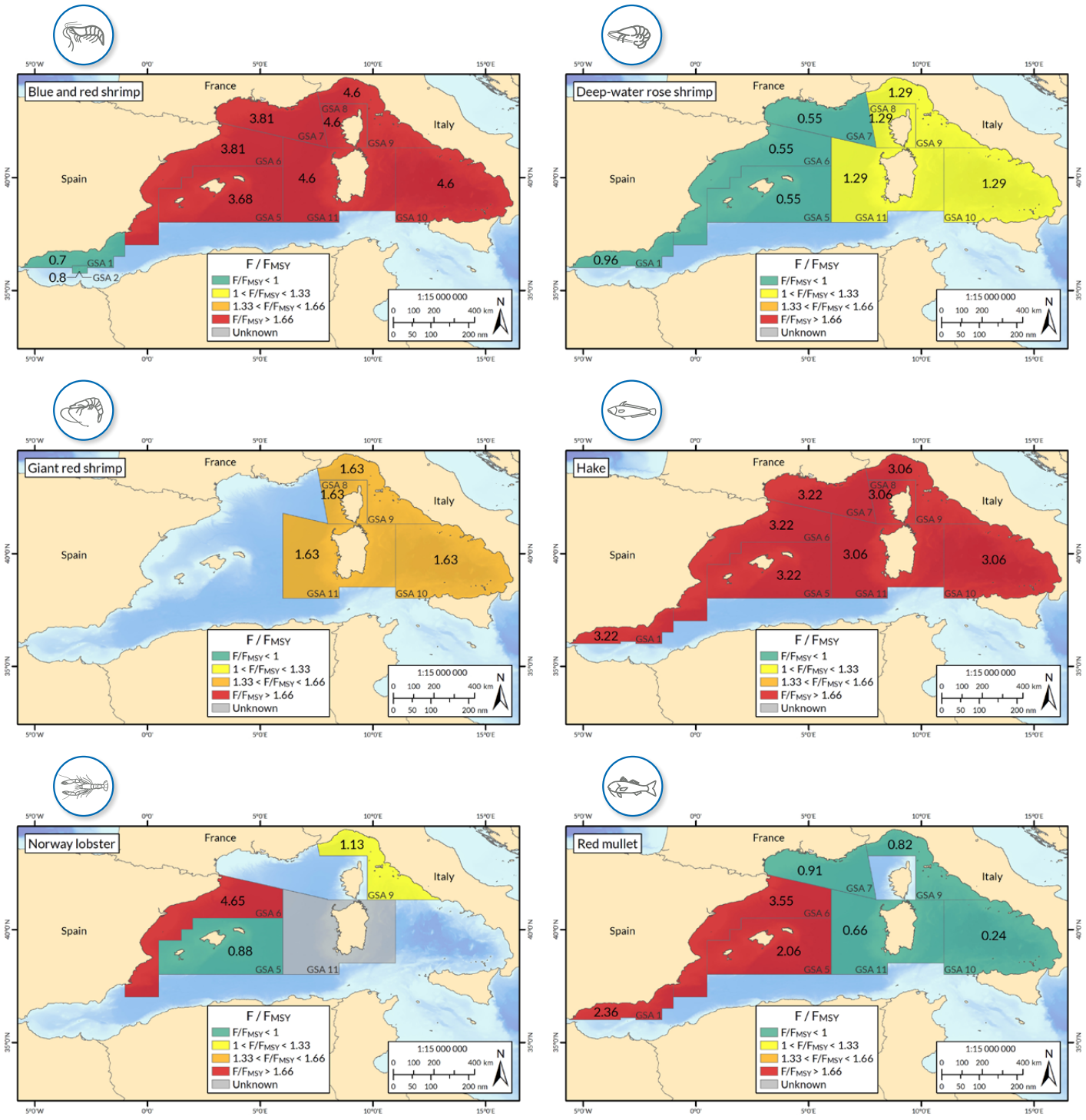

Figure 2.2. Fishing mortality (F/F_{MSY}) in 2022 for stocks in the western Mediterranean Sea, according to GFCM ranges of fishing pressure.

Source: STECF 23-09,[xiii] STECF-Adhoc-24-01,[xvi] GFCM stock assessment.[xv]

Additionally, giant red shrimp in Corsica, Sardinia, and the Ligurian and Tyrrhenian Seas (GSAs 8-9-10-11) is exploited at 63% above sustainable levels, deep-water rose shrimp in the same area (GSAs 8-9-10-11) is fished at 29% above sustainable levels, and Norway lobster in the Ligurian Sea and Northern Tyrrhenian Sea (GSA 9) is fished at 13% above sustainable levels.

Only nine of the 22 populations are fished sustainably (i.e. $F/F_{MSY}<1$). Specifically, these populations include deep-water rose shrimp in EMU1, red mullet in the Gulf of Lion (GSA 7) and EMU2, Norway lobster in the Balearic Islands (GSA 5), and blue and red shrimp in the Northern Alboran Sea and Alboran Island (GSAs 1-2). However, based on the latest scientific advice, the biomass of these populations represents only roughly 30% of the entire biomass of the demersal stocks considered. Figure 2.2 shows the levels of fishing mortality across all stocks within the entire geographical area.

2.2.2 Results: Population biomass

Out of the 22 populations covered by the MAP, STECF and GFCM assessments could provide biomass estimates and reference points for only 13 populations. Overall, as highlighted by the latest STECF Plenary Report,[xvii] while there has been a slight increase in fished population biomass in EMU1 since the implementation of the MAP, the trend is not as clear in EMU2 (Figure 2.3).

In contrast to the patterns observed with fishing mortality levels, biomass exhibits a slower path towards the MAP's objectives. This is not surprising, considering the time needed for stocks to recover following a decrease in fishing mortality. Nevertheless, it is crucial to underscore the need for additional action to bring fish populations in the western Mediterranean back to healthy biomass levels.

Regarding the 13 populations with an available B_{MSY} reference point, the results paint a dire picture (Table 2.6). Comparing estimated biomass levels against their biomass at MSY, revealed that 46% of stocks are in a critical state of overexploitation ($B<0.5B_{MSY}$) and 39% are overexploited ($0.5B_{MSY}>B<B_{MSY}$). The biomass of only two stocks (15%), red mullet in the Gulf of Lion and in the Southern and Central Tyrrhenian Sea (GSAs 7 and 10), is in line with the MAP's objective ($B>B_{MSY}$), although it is worth noting that the biomass of red mullet in the Ligurian Sea and Northern Tyrrhenian Sea (GSA 9) is almost at sustainable levels.

Among the most depleted populations, the two stocks of European hake are the most critically overexploited, with biomass at around 3% and 9% of the B_{MSY} reference point in EMU1 and 2, respectively. Norway lobster in Northern Spain (GSA 6) and blue and red shrimp in the Balearic Islands (GSA 5) present at just over 10% of the B_{MSY}. Blue and red shrimp in Northern Spain and Gulf of Lion (GSAs 6-7) have a biomass of just over 28% of B_{MSY}. Red mullet's biomass in Northern Spain (GSA 6) is around 42% of the B_{MSY} level. Norway lobster in the Ligurian Sea and Northern Tyrrhenian Sea (GSA 9), and red mullet in the Northern Alboran Sea (GSA 1), have a biomass level of around 60% (the former has 56% and the latter has 62%) of the B_{MSY} level. Deep-water rose shrimp and giant red shrimp in the entire EMU2 have an abundance of over 70% of B_{MSY}. Figure 2.4 displays the current status of the biomass levels of all the stocks considered.


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In summary, 85% of the 13 populations with available information are not fulfilling the MAP's objective of restoring and maintaining populations of harvested species above levels which can produce MSY.

The depleted status of the populations is further emphasised by the fact that the biomass levels of most of the 13 populations are below B_{PA} or even below B_{LIM} (Table 2.6). Below this latter reference point, the reproductive capacity and subsequent recruitment of a stock are considered impaired, and there is an increased risk of collapse. Currently, populations whose biomass is below B_{LIM} include European hake across the entire region (EMU1 and EMU2), and Norway lobster in Northern Spain (GSA 6). Biomass levels of red mullet in the Northern Alboran Sea and Northern Spain (GSAs 1 and 6), as well as blue and red shrimp in the Balearic Islands, Northern Spain, and Gulf of Lion (GSAs 5-6-7), are above B_{LIM}, but below B_{PA}.

Figure 2.3. Trends in biomass for populations under the West Med MAP with analytical assessment. Vertical dashed lines correspond to the entry into force of the CFP (2014) and the West Med MAP (2020).

Source: STECF 23-09[xiii] and GFCM stock assessments.[xv]

Table 2.6. Recent (2022) estimated levels of biomass (B) for populations under the West Med MAP, in relation to B_{LIM}, B_{PA}, and B_{MSY}, and changes in biomass during the periods between the entry into force of the CFP and the adoption of the West Med MAP (B change 2014-2019), and since the adoption of the West Med MAP (B change 2019-2022).

Species	GSA	B change 2014-2019	B change 2019-2022	B/B_{LIM}	B/B_{PA}	B/B_{MSY}
Blue and red shrimp	1◊	*	↓ 7%	**	**	**
Blue and red shrimp	2◊	*	↑ 43%	**	**	**
Blue and red shrimp	5	↑ 37%	↑ 20%	1.32	0.66	0.12
Blue and red shrimp	6-7	↓ 8%	↑ 7%	1.68	0.84	0.29
Blue and red shrimp	8-9-10-11	*	*	**	**	**
Deep-water rose shrimp	1	↑ 576%	↑ 79%	**	**	**
Deep-water rose shrimp	5-6-7	↑ 105%	↑ 157%	**	**	**
Deep-water rose shrimp	8-9-10-11	↑ 14%	↓ 34%	3.18	1.59	0.80
Giant red shrimp	9-10-11	↓ 3%	↓ 21%	2.98	1.49	0.74
European hake	1-5-6-7	↓ 29%	↑ 3%	0.53	0.26	0.03
European hake	8-9-10-11	↔ 0%	↑ 21%	0.86	0.43	0.09
Norway lobster	5	*	*	**	**	**
Norway lobster	6	↓ 47%	↓ 12%	0.35	0.18	0.10
Norway lobster	9	↑ 6%	↑ 67%	2.26	1.13	0.57
Red mullet	1	↓ 24%	↑ 102%	1.45	0.73	0.62
Striped red mullet	5◊	*	↑ 13%	**	**	**
Red mullet	6	↔ 0%	↓ 5%	1.98	0.99	0.42
Red mullet	7	↑ 34%	↑ 55%	6.61	3.30	1.14
Red mullet	9	↓ 4%	↑ 104%	3.98	1.99	0.99
Red mullet	10◊	*	*	**	**	1.56
Red mullet	11	*	*	**	**	**

* Data are missing from all databases.

** No B_{LIM}, B_{PA} and B_{MSY} reference points are identified for these stocks.

Source: STECF 23-09[xiii], except where labelled ◊ (GFCM stock assessment).[xv]

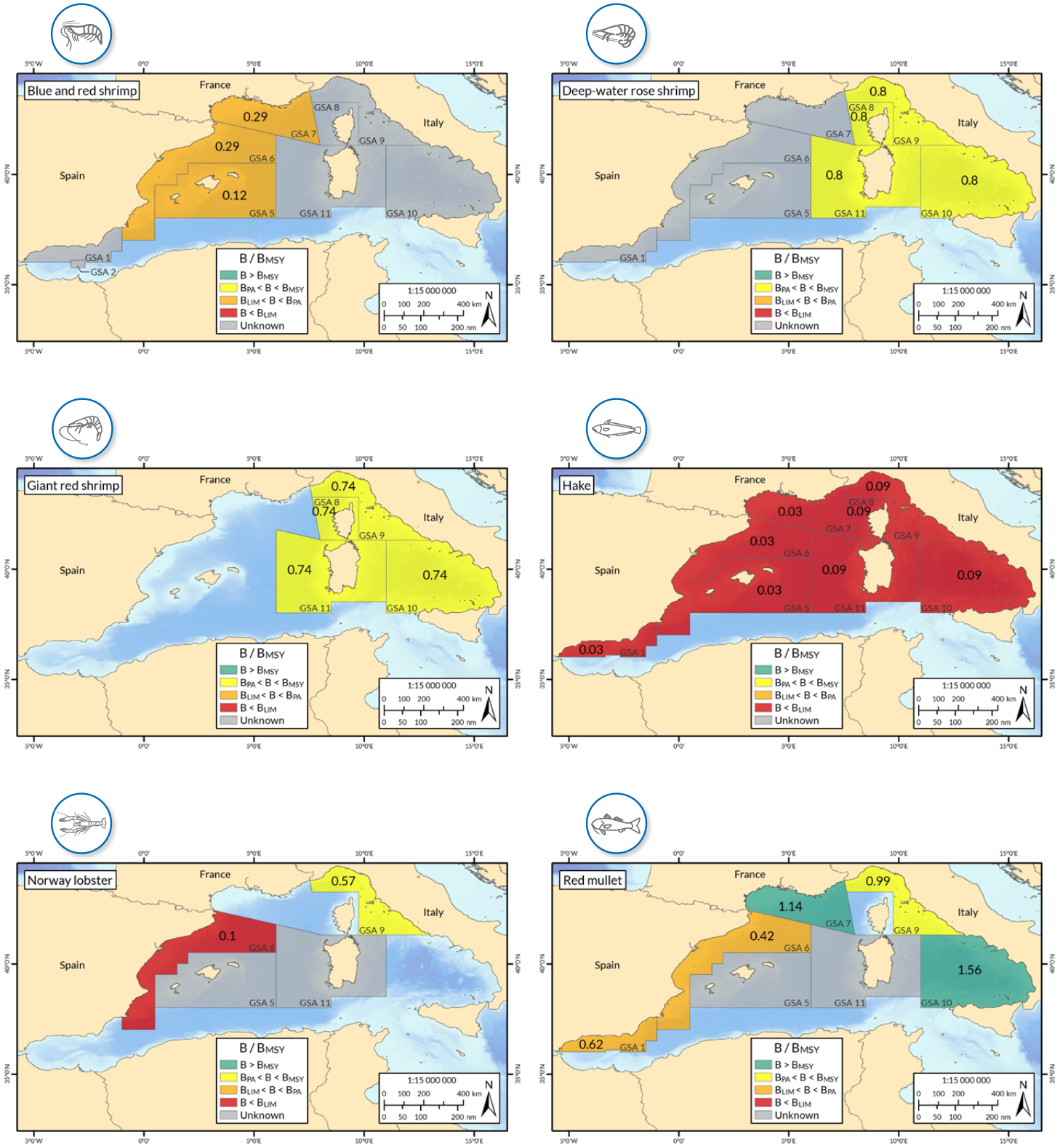
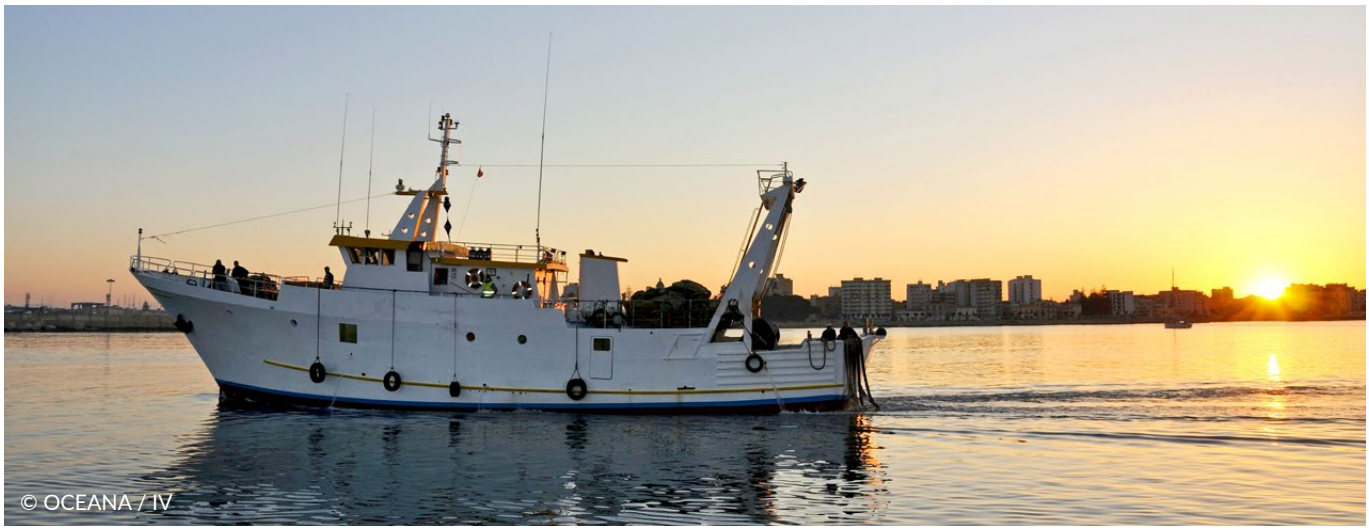


Figure 2.4. Biomass status of western Mediterranean stocks in relation to the main reference points (i.e. B_{MSY}, B_{PA}, and B_{LIM}), in 2022.

Source: STECF 23-09,[xiii] STECF-Adhoc-24-01,[xvi] GFCM stock assessment.[xv]

3. Impact of the western Mediterranean multiannual plan implementation



This section focuses on the progress toward achieving the first objective of the MAP set out in Article 3, which aims to ensure that the exploitation of living marine biological resources restores and maintains populations of harvested species above levels which can produce MSY. It should be noted that the evolution of some indicators – mainly fishing mortality – may also have been influenced by external factors, such as the COVID-19 pandemic in 2020 or fuel price increases in 2022, which are likely to have had a direct impact on actual fishing days.

The latest year for which there is reliable scientific information for the two main fisheries indicators (i.e. F and B) covered in this report is 2022. Therefore, the conclusions listed below reflect the impact of the West Med MAP during the first three years of its implementation (i.e. 2020, 2021, and 2022). As measures have been implemented during 2023 and 2024 that are similar to those adopted in 2022-2022, it is likely that the trends described below have continued during these last two years.

The implementation of the MAP is resulting in a positive shift in the exploitation of the stocks concerned. Since its entry into force in 2020, fishing mortality (F/F_{MSY}) has shown an overall decreasing trend towards sustainable levels. However, despite this positive trend, there remains a high risk of not achieving the F_{MSY} objective by 2025 for all the populations covered by the MAP. Fishing mortality remains high, averaging 1.94 times the F_{MSY} value, while some stocks are fished at up to five times the F_{MSY} rate.

Prior to the implementation of the MAP, Member States made limited efforts to fulfil their legal obligation under the CFP to progressively achieve the MSY exploitation rate. During the period from 2014 to 2019, fishing mortality decreased for 50% of the assessed stocks, while it increased for the other 50% (as shown in Table 2.5). This earlier lack of timely action to move towards F_{MSY} means that even greater efforts are now necessary to achieve the MAP's objective of reaching F_{MSY} for all stocks by 2025.

The impact of the adopted management measures (including a reduction in fishing days for trawlers, freezing the number of fishing days for longliners, a slight reduction of catch limits for two shrimp species, new spatial-temporal fishing restrictions, and improvements in gear selectivity) varies greatly in its effect on the fishing mortality of concerned fish populations. While fishing mortality for some populations has been sharply reduced, for others it has increased unacceptably, such as for deep-water rose shrimp in EMU2 and red mullet in GSA 6.

A substantial level of overfishing persists for most stocks under the MAP. As shown in Section 2.2, only nine populations (43%) are known to be sustainably exploited ($F<F_{MSY}$), while the majority, twelve populations (57%), are still subject to overfishing ($F>F_{MSY}$). Additionally, the exploitation rate of one population (Norway lobster in GSA 11) remains unknown. Of particular concern are the exploitation levels of Norway lobster in GSA 6, blue and red shrimp in GSAs 5 and 6-7, red mullet in GSA 6, and European hake in EMU1 and EMU2, all of which are subject to fishing mortalities that are more than triple the levels considered sustainable.

Given the reported reduction in fishing effort within closed areas,[xiv] their implementation holds promise for reducing catches of juvenile and adult individuals of the six target species and increasing overall stock biomass over time. It is still too early in the implementation of closure areas under the MAP to determine significant increases in recruitment or biomass, particularly for long-lived species. However, the STECF has identified certain areas that may be more promising for such closures, while others may not be well defined in space and/or time.[xiv]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The decreasing trend in fishing mortality observed during the implementation of the West Med MAP has not yet resulted in an overall significant increase in biomass. Additional time may be necessary for such a population increase to materialise in response to reduced fishing mortality. This can be attributed in part to the life cycles of the species considered, which may require a longer timespan to show signs of recovery. Nonetheless, significant increases (>100%) in biomass have already been achieved for certain stocks, such as red mullet in GSAs 1 and 9 and deep-water rose shrimp in GSAs 5-6-7. However, for four populations (red mullet in GSA 6, Norway lobster in GSA 6, giant red shrimp in GSA 9-10-11, and deep-water rose shrimp in 8-9-10-11), their biomass has instead declined since the MAP entered into force.

The majority of populations remain in a dire conservation status, with abundance levels below either MSY, precautionary, or limit reference points. Particularly alarming is the situation of European hake across the entire area (EMU1 and EMU2), along with Norway lobster in GSA 6. The abundance of these three stocks currently stands at only 3%, 9%, and 10%, respectively, of the MAP objective ($B>B_{MSY}$) and lies below B_{LIM}, heightening the risk of collapse.

The status of six fish populations covered by the West Med MAP is unknown, which represents a challenge for assessing its impact. These stocks are categorised as data-limited, for which their status in terms of exploitation rate (F) and biomass (B) remains unknown and/or lacks defined reference points.

Only two of the 22 assessed populations, namely red mullet in GSA 7 and GSA 9, are known to meet both the MAP objectives of $F\leq F_{MSY}$ and $B>B_{MSY}$.

4. Policy and management recommendations

The West Med MAP is playing a role in improving sustainability in the area and achieving the objectives enshrined in the CFP, but there is a striking gap between the legal obligations it establishes for fisheries management in the western Mediterranean, and the current status of fished populations. This gap in achieving the MAP's objectives does not necessarily indicate flaws in the wording or the tools provided. Instead, it underscores the need for further reductions in fishing mortality, accompanied by a strong emphasis on technical measures. Further measures, in line with scientific advice, must be adopted to restore demersal fish populations to a healthy state in this critical sea basin. Moreover, they should be implemented as a matter of urgency, given the critical situation of stocks and the unmet legal obligations under the MAP.

Based on the conclusions of this report, Oceana lays out **ten key recommendations** for the European Commission and the governments of France, Italy, and Spain, detailing the way forward for achieving fisheries' sustainability in the western Mediterranean.

1. Improve efforts to reduce fishing mortality

Continuing the implementation of available tools – such as restrictions on the number of fishing days and catch limits, spatial and temporal restrictions, and improvements in selectivity – remains crucial for reducing fishing mortality within F_{MSY} ranges. Although the correlation between specific management measures and resulting fishing mortality may not always be clear, these measures have generally led to reductions in fishing mortality. With the requirement to set fishing mortalities within MSY ranges for all stocks from January 2025 onwards (Article 4.1), the systematic reduction of fishing pressure to below scientifically advised levels is even more urgent for those stocks that are below levels capable of producing the MSY.

2. Adopt safeguard measures

Contrary to their legal obligation, Member States have not yet adopted appropriate emergency measures, as described in Article 6.2 of the MAP, to recover fished stocks which are currently below B_{LIM}. As shown in Table 2.6, three fish populations are currently in this critical state, including European hake across the entire region (EMU1 and EMU2), and Norway lobster in Northern Spain (GSA 6). The Commission and Member States should act immediately to respect the binding legal text and avoid the risk of population collapse.

Likewise, Article 6.1 of the MAP, which creates a legal obligation for the Member States and the Commission to implement remedial measures to recover stocks falling below B_{PA}, will enter into force on 1 January 2025. Rather than delaying such measures until the last possible moment, decision-makers should instead plan to implement them as soon as possible, to improve their chances of success. There are currently four such stocks in need of remedial measures (Table 2.6) to ensure their rapid recovery from below B_{PA} to levels above those capable of producing MSY. It is unlikely that most of the populations currently below B_{PA} and B_{LIM} will improve their biomass levels by 2025 without the introduction of new measures aimed at their recovery.

3. Tailor management approaches

Given the varying impacts of adopted management measures on the fishing mortality of the different fish stocks, Member States should adopt a more tailored approach by GSA and individual fish stock (where feasible) when establishing management measures. For example, the management of certain species, such as hake, could be subdivided into smaller geographical areas

that are delineated by GSAs or groups of GSAs rather than EMUs, to enhance the effectiveness of implemented measures and better align them with the objectives of the MAP. Similarly, for species like blue and red shrimp, catch limits could be set by GSAs or groups of GSAs instead of entire EMUs, to optimise the scientific advice and improve management precision.

4. Include new gears and catch limits under the MAP

Exploring the inclusion of additional gears under the MAP is crucial, if substantial catches of a specific stock with high fishing mortality are attributed to fishing gears that are not currently regulated under the plan — such as gillnets, which are responsible for 22% of hake catches in EMU2.[xiii] Implementing maximum allowable fishing effort or catch limits for these specific gears could be beneficial. Additionally, mandating STECF to identify other populations that could benefit from catch limit management can be a further – and more effective – way to control fishing mortality. Moreover, efforts should be intensified to reduce existing catch limits under the MAP (for blue and red shrimp and giant red shrimp) to scientifically advised levels.

5. Adopt further selectivity measures

Improvements are recommended in the design and adoption of new technical measures, particularly concerning the compensation mechanism, as some of them fall short of achieving the intended outcomes. For instance, despite incentivising trawlers to increase their codend mesh size to 45 mm (by granting them additional fishing days), the mandated minimum 25% reduction in hake juvenile catches has not been achieved.[xiv] Similarly, raising the minimum conservation reference size (MCRS) for hake to 26 cm without implementing adequate technical measures to prevent the capture of individuals below this size has no positive effect on hake populations.[xiv] Instead, it results in increased discards or may contribute to the growth of illegal landings and trade.

6. Establish and assess closure areas

Acknowledging Member States' efforts in implementing closures, it is evident that additional spatial protection is needed to reduce fishing on persistent hotspots of juveniles and on spawning grounds of key stocks. The Commission should prioritise the regular assessment of existing closures against the MAP's objectives and establish incentives for Member States to identify and designate new closures, as new scientific data emerges. The establishment of new closures should be complemented with impact analyses of the resulting displacement of fishing effort.


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It is also imperative to accelerate the endorsement of new potential closures that are positively assessed by STECF, as well as the removal from the compensation mechanism of areas that do not sufficiently contribute to reducing fishing pressure on juveniles and spawning individuals. While recognising a reduction in the fishing effort in the closed areas, it raises doubts as to its use as a criterion for accessing additional fishing days through the compensation mechanism, as effort in the fishable areas is already increased due to the displacement of fishing effort outside the closed area, so adding extra fishing days would not be precautionary particularly in a situation of generalised overexploitation of resources.

7. Ensure coherence with EU environmental legislation

Management measures under the MAP must align with and actively contribute to fulfilling EU environmental legislation, particularly the objectives of attaining Good Environmental Status and its objective of Descriptor 3 (i.e. maintaining commercial fish and shellfish within safe biological limits). This descriptor contains three criteria for assessing progress towards Good Environmental Status, of which Criterion 3.3. is particularly relevant, as it refers to "fish population age and size distribution". Coherence in approach, specifically regarding the healthy distribution of populations, is key to achieving long-term sustainability. It is essential that management measures prioritise and are consistent with EU environmental objectives to ensure the health and resilience of marine ecosystems.

8. Invest in scientific research and data collection

There is a need to improve the available scientific information to inform management, especially for data-limited stocks and stocks for which there is no scientific assessment (i.e. Norway lobster in GSA 11). STECF has highlighted the need to harmonise model outputs and for further data collection to improve the quality of stock assessments. Considering these recognised issues, some of the scientific advice provided should be interpreted with caution. Further supporting research is therefore essential to enhance understanding of ecosystem dynamics, improve the scientific advice available to inform decision-making, and assess the effectiveness of fisheries management measures.

9. Enhance enforcement and monitoring of adopted measures

Regular monitoring of all fleets covered by the MAP is essential to ensure consistency between actual days at sea and declared fishing days. Enhanced monitoring and enforcement efforts are critical for achieving compliance with management measures and deterring illegal, unreported, and unregulated (IUU) fishing activities. The Commission and Member States should prioritise investments in technology and capacity building to improve surveillance and enforcement capabilities.

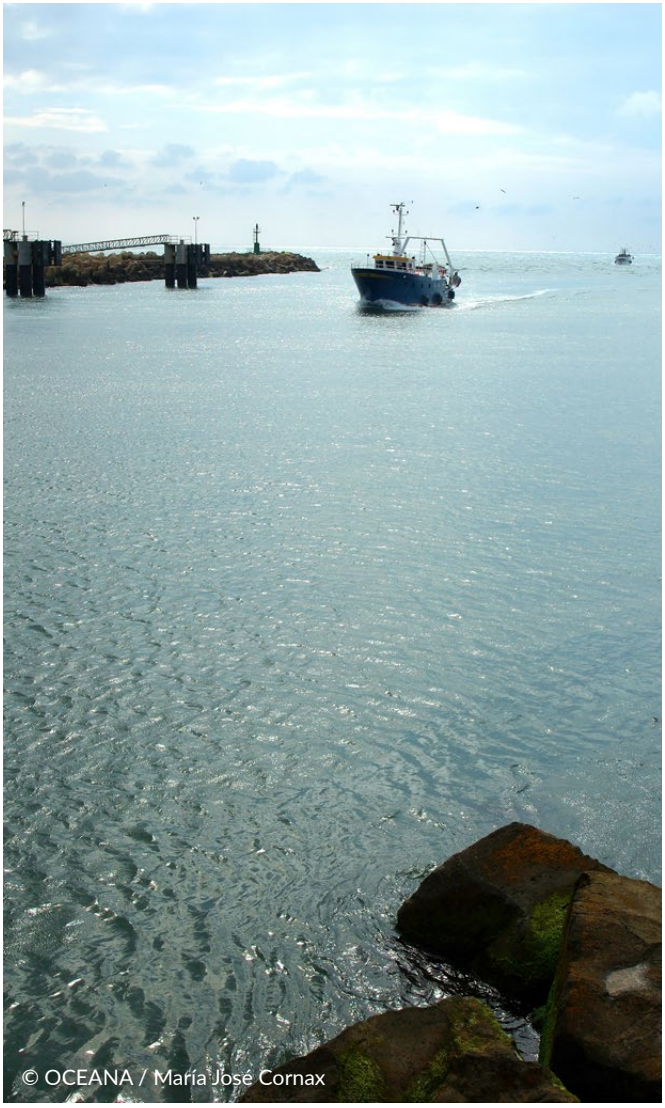
10. Foster collaboration among stakeholders

Achieving the objectives of the MAP hinges on collaborative efforts among governments, small- and large-scale fishers, the scientific community, and NGOs. To succeed, diverse stakeholders must unite to develop and implement comprehensive management measures. It is imperative to engage stakeholders in decision-making processes to ensure a range of perspectives are considered. All relevant stakeholders must intensify efforts towards sustainable fisheries management in the western Mediterranean. Collective action is essential for making meaningful progress, and only through collaboration can the region's marine resources be safeguarded for the long term.

5. Conclusion

Oceana urges the European Commission to consider the findings and recommendations outlined in this report during the evaluation process of the western Mediterranean multiannual plan. Importantly, the MAP needs to be assessed on outcomes, not just actions taken. It is crucial that the Commission acknowledges the relevance and progress made thus far, while directly addressing the persistent challenges in meeting the objectives of the West Med MAP.

We also call upon both the Commission and Member States – particularly France, Italy, and Spain – to take rapid and decisive action in response to the overfished and depleted status of the populations when setting fishing opportunities for the coming years. This includes efforts aimed at further reducing fishing mortality by restricting fishing days, implementing effective technical conservation measures, and advancing a more tailored approach to fisheries management. The goals of ending overfishing, recovering and maintaining all stocks above healthy levels, minimising by-catches, and safeguarding marine ecosystem functioning and resilience are still a long way off, especially given the escalating impacts of climate change.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Only through collective action of all stakeholders, and their commitment to implement comprehensive and effective management measures, can the long-term sustainability of fisheries and marine ecosystems in the western Mediterranean be ensured.


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References

[i] Regulation (EU) 2019/1022 of the European Parliament and of the Council of 20 June 2019 establishing a multiannual plan for the fisheries exploiting demersal stocks in the western Mediterranean Sea and amending Regulation (EU) No 508/2014. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R1022

[ii] General Fisheries Commission for the Mediterranean. (2009). Resolution GFCM/33/2009/2 on the establishment of geographical subareas in the GFCM area of application, amending Resolution GFCM/31/2007/2. https://www.fao.org/gfcm/data/maps/gsas/es/

[iii] Regulation (EU) 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1380

[iv] Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive). https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008L0056

[v] Council Regulation (EU) 2022/110 of 27 January 2022 fixing for 2022 the fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Mediterranean and Black Seas. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022R0110

[vi] Scientific, Technical and Economic Committee for Fisheries. (2023). Evaluation of fishing effort and catch regime for demersal fisheries in the western Mediterranean Sea (Part XI) (STECF-23-11). Pinto, C., Doering, R., & Pierucci, A. (Eds). Publications Office of the European Union. https://data.europa.eu/doi/10.2760/430278

[vii] Council Regulation (EU) 2019/2236 of 16 December 2019 fixing for 2020 the fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Mediterranean and Black Seas. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R2236

[viii] Council Regulation (EU) 2021/90 of 28 January 2021 fixing for 2021 the fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Mediterranean and Black Seas. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R0090

[ix] Council Regulation (EU) 2023/195 of 30 January 2023 fixing for 2023 the fishing opportunities for certain stocks and groups of fish stocks applicable in the Mediterranean and Black Seas and amending Regulation (EU) 2022/110 as regards the fishing opportunities for 2022 applicable in the Mediterranean and the Black Seas. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023R0195

[x] Council Regulation (EU) 2024/259 of 10 January 2024 fixing for 2024 the fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Mediterranean and Black Seas. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202400259

[xi] Scientific, Technical and Economic Committee for Fisheries. (2021). Stock Assessments: demersal stocks in the western Mediterranean Sea (STECF-21-11). Simmonds, J., & Mannini, A. (Eds). Publications Office of the European Union. https://data.europa.eu/doi/10.2760/046729

[xii] Scientific, Technical and Economic Committee for Fisheries. (2022). Stock Assessments: demersal stocks in the western Mediterranean Sea (STECF-22-09). Simmonds, J., Mannini, A., & Kupschus, S. (Eds). Publications Office of the European Union. https://data.europa.eu/doi/10.2760/00380

[xiii] Scientific, Technical and Economic Committee for Fisheries. (2023). Stock assessments in the Western Mediterranean Sea (STECF 23-09). Mannini, A., Ligas, A., & Pierucci, A. (Eds). Publications Office of the European Union. https://data.europa.eu/doi/10.2760/995295

[xiv] Scientific, Technical and Economic Committee for Fisheries. (2023). Evaluation of economic indicators and closure areas in the western Mediterranean (STECF-23-01). Pinto, C., Doering, R., Kupschus, S., & Pierucci, A. (Eds). Publications Office of the European Union. https://data.europa.eu/doi/10.2760/29623

[xv] General Fisheries Commission for the Mediterranean. (n.d.). Validated stock assessment forms (SAFs). Retrieved May 30, 2024 from: https://www.fao.org/gfcm/data/safs/en/

[xvi] Scientific, Technical and Economic Committee for Fisheries. (2024). Monitoring the performance of the Common Fisheries Policy (STECF-Adhoc-24-01). Gras, M., Pierucci, A., Mantopoulou, P. D., Kupschus, S., & Konrad, C. (Eds). Publications Office of the European Union. https://stecf.jrc.ec.europa.eu/documents/d/stecf/stecf-24-01-adhoc-cfp_monitoring

[xvii] Scientific, Technical and Economic Committee for Fisheries. (2024). 75th Plenary Report (STECF-PLEN-24-01). Pinto, C., Doering, R., Kupschus, S., & Pierucci, A. (Eds). Publications Office of the European Union. https://stecf.ec.europa.eu/document/download/ea521d84-02e3-41d3-a5e1-b5197ec088fa_en?prefLang=es

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