

# Mediterranean Sea

## A KEY EU FISHING REGION IN A BLEAK STATE OF OVERFISHING

February 2016

### OVEREXPLOITED RESOURCES

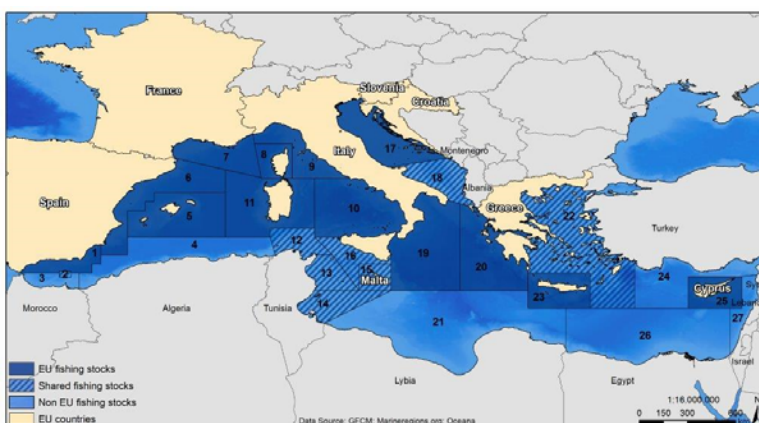
Overfishing in the Mediterranean Sea began around the '70s, when fishing effort increased considerably thanks to technological developments that allowed fleets to fish farther, deeper and find catches more easily.

Latest assessments<sup>2</sup> of the situation in the Mediterranean, revealed that 96% of stocks fished exclusively by EU countries are overexploited above what is considered sustainable (i.e Maximum Sustainable Yield, MSY<sup>3</sup>). Moreover, a scientific study<sup>4</sup> estimates that 98% of the unassessed demersal fishes could be overfished.

Today in the Mediterranean Sea, the main fishing stocks' biomass is below sustainable levels (i.e. under MSY). In addition, fishing catches have remained extremely high for years. As a result, the main commercial demersal fish stocks are overfished.

Overall, only two crustaceans stocks, in the Ligurian and North Tyrrhenian Sea area, and one small pelagic stock in the Northern Alboran Sea, are fished at sustainable levels (Table 2). European hake, an important commercial species, is fished up to 14 times higher than sustainable levels in some EU Mediterranean areas; while blue whiting, black-bellied angler and red mullet are all fished at levels around 10 times higher than what is considered to be sustainable (Table 2).

Map 1. Mediterranean Sea and fishing area management units (GSA). Dark blue areas show where the EU fishes exclusively (not shared with third countries). EU countries (yellow) and third countries (grey).



*96% of stocks fished exclusively by the EU are overfished*

### TWO THIRDS FOR THE EU

Fishing in the Mediterranean Sea is a deeply-rooted economic activity that has been of great social and cultural importance in the region for a thousand years.

The European Union is the main player in this sea with a fleet covering fishing grounds that make up around 64% of the Mediterranean Sea area, of which only 18% are shared with third countries (Map 1). Eight Member States fish in this sea, with Italy, Spain and Croatia, in this order, being the most important fleets in terms of weight and value of landings<sup>1</sup>.

Species		Magnitude of overfishing (i.e. how many times current fishing mortality is above sustainable levels in EU waters)			EU countries affected
		Average level	Maximum level	Minimum level	
Common name	Scientific name				
European hake	<i>Merluccius merluccius</i>	6.89	14.91	3.61	Spain, France, Italy, Croatia
Blackbellied angler	<i>Lophius budegassa</i>	5.48	10.50	1.56	Spain, France
Blue whiting	<i>Micromesistius poutassou</i>	5.35	9.50	1.80	Spain, Italy
Red mullet	<i>Mullus barbatus</i>	4.43	9.70	1.17	Spain, Italy, France, Croatia, Slovenia
Striped red mullet	<i>Mullus surmuletus</i>	3.00	3.00	3.00	Spain
Common sole	<i>Solea solea</i>	3.00	3.00	3.00	Italy, Croatia, Slovenia
Sardine	<i>Sardina pilchardus</i>	2.94	3.46	<1	Spain, Italy, Croatia, Slovenia
Norway lobster	<i>Nephrops norvegicus</i>	2.56	3.93	1.71	Spain, Italy
Blue and red shrimp	<i>Aristeus antennatus</i>	2.43	3.41	1.80	Spain
Pink shrimp	<i>Parapenaeus longirostris</i>	2.10	5.48	0.95	Spain, Italy
European anchovy	<i>Engraulis encrasicolus</i>	1.80	2.08	1.52	Spain, Italy, Croatia, Slovenia
Blackspot seabream	<i>Pagellus bogaraveo</i>	1.70	1.70	1.70	Spain
Giant red shrimp	<i>Aristaeomorpha foliacea</i>	0.83	1.40	0.25	Italy

Table 2. Fishing mortality levels for main EU stocks. Green: sustainably harvested stocks; red: overfished stocks. Source: Oceana with STECF data from 2013 to 2015.

Despite scientists advising a drastic reduction in fishing mortality to ensure that stocks are managed sustainably, they have been ignored in almost all cases. In fact, in some cases, fishing mortality rates for important demersal fish stocks have been kept as high as in recent years or have even increased (Fig. 1).

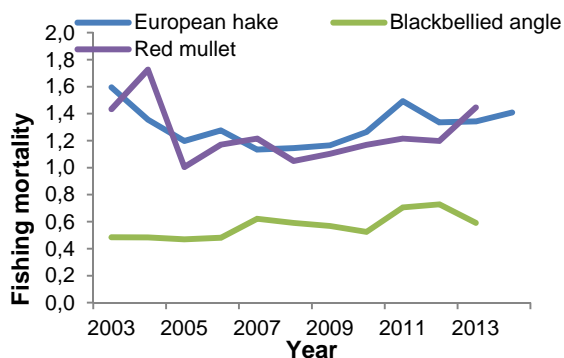


Figure 1. Average value of fishing mortality for three EU demersal fish stocks in the Mediterranean Sea over time from 2003 to 2014.

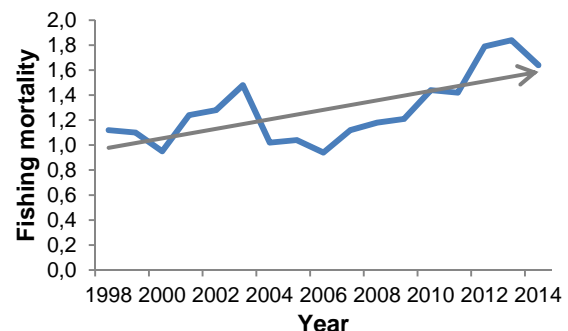
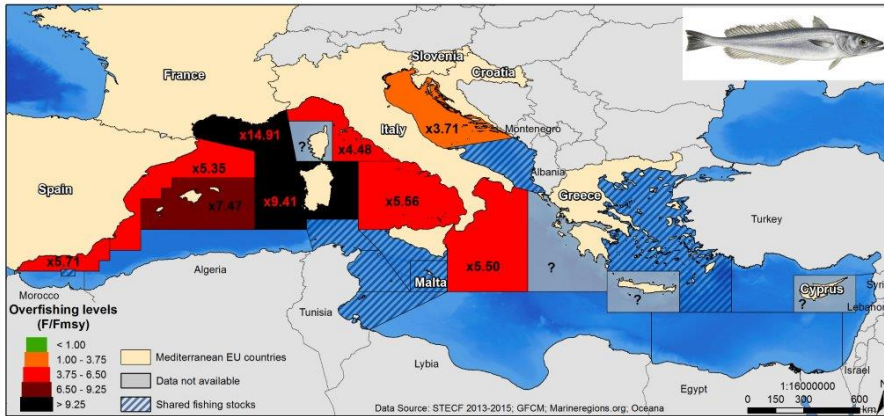


Figure 2. Evolution of fishing mortality rates of the European hake stock in the Gulf of Lions (GSA 07)

For example, European hake catches in the Gulf of Lions have increased consistently from 1998 to 2014, leading to the most alarming state of overexploitation ever recorded in the Mediterranean Sea (Fig. 2, Map 2).

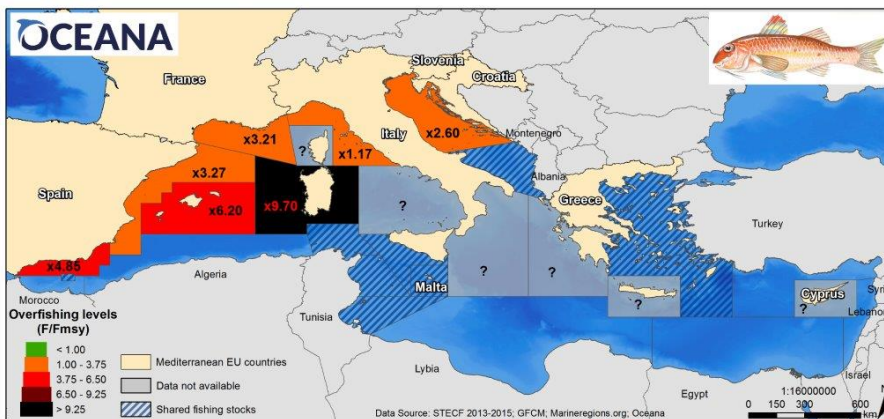
HOW MANY TIMES FISHING MORTALITY OF HAKE IS ABOVE SUSTAINABLE LEVELS



Scientists state that to recover stocks and improve fishing effectiveness, nursery and spawning grounds (i.e. Essential Fish Habitats) must be established and protected. This would be relevant for both stocks and fisheries. Indeed, **by avoiding to fish juveniles of commercial species, economic yields<sup>5</sup> could increase by 2 or 3.**

*Fishing less and better: key to recovering stocks and fishing more in future*

HOW MANY TIMES FISHING MORTALITY OF RED MULLET IS ABOVE SUSTAINABLE LEVELS



THE MEDITERRANEAN SEA NEEDS ACTION NOW

The EU and its Member States (MS) are responsible for guaranteeing that stocks are fished within MSY levels as soon as possible and no later than 2020, as laid out in the Common Fisheries Policy (CFP)<sup>6</sup>. Once this deadline has passed, the overfishing of EU stocks will become illegal. Furthermore, EU environmental laws<sup>7</sup>, state that by 2020, all EU MS should ensure ecologically diverse and dynamic oceans, that are clean, healthy and productive.

EU Atlantic stocks have seen a recovery in the last five years. Overfished stocks have decreased from 63% to 48%, thanks to a reduction in catches and the implementation of scientific advice. Unfortunately, in the EU Mediterranean Sea, the number of overfished stocks have increased from 87% to 93% (taking into account shared stocks) and the number of sustainably fished stocks steadily decreased, from 10 to 6 between 2010 and 2013<sup>2</sup>.

**To date, truly effective measures have yet to be set up in EU Mediterranean waters, leaving this key sea in a dramatic state of emergency.**

*Atlantic stocks have been improving for the last 10 years, whereas overfishing continues to grow in the Mediterranean*

## EMERGENCY CLOSURES AND LONG-TERM MEASURES

Oceana believes that in order to fulfil the 2020 commitments, emergency measures should be applied with no further delay, starting with, but not limited to, immediate emergency closures for all stocks with fishing mortality levels that are far from becoming sustainable in the short term, such as many hake stocks.

In parallel, in order to ensure that the 2020 deadline is met for the rest of the stocks, and to ensure the long-term sustainability of fisheries, the following measures should be adopted progressively:

- **Reduce fishing mortality and base catch and effort limits on best available scientific advice** to ensure fish stocks recover to MSY levels and are managed at sustainable levels in the long-term.
- **Protect nursery and spawning grounds.** Establish Fish Stock Recovery areas to protect nursery and spawning grounds
- **Protect juveniles** by ensuring Minimum Conservation Reference Size (MCRS), which allow fish to reach maturity size.
- **Improve the selectivity** of fishing gear and reduce negative impacts on the ecosystem. Set up technical measures to avoid unwanted catches (protected species, juveniles, etc) and protect sensitive habitats from aggressive fishing methods.
- **Set up appropriate monitoring control and surveillance tools.** Ensure full compliance of the adopted measures.

# 2020

*After that year, overfishing will be illegal in the EU*

## 2018: CLOSING ALL FISHING ACTIVITY?

**By 2019, EU Member States' inaction from could deliver a scenario wherein closing all fishing activity in the Mediterranean or losing the fisheries will be the only two options left. For the sake of conservation and the future livelihoods of coastal communities in the region, EU States must act today to prevent greater damage tomorrow.**

<sup>1</sup> STECF (2015). The 2015 Annual Economic Report on the EU Fishing Fleet (STECF-15-07). Publications Office of the European Union, Luxembourg, EUR 27428 EN, JRC 97371, 434 pp.

<sup>2</sup> COM(2015) 239 final. Consultation on the fishing opportunities for 2016 under the Common Fisheries Policy.

<sup>3</sup> Common Fisheries Policy: "maximum sustainable yield" means 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;"

<sup>4</sup> Osio, G. C., Orio, A., & Millar, C. P. (2015). Assessing the vulnerability of Mediterranean demersal stocks and predicting exploitation status of un-assessed stocks. Fisheries Research, 171: 110-121.

<sup>5</sup> Colloca, F., Cardinale, M., Maynou, F., Giannoulaki, M., Scarcella, G., Jenko, K., ... & Fiorentino, F. (2013). Rebuilding Mediterranean fisheries: a new paradigm for ecological sustainability. Fish and Fisheries, 14(1): 89-109.

<sup>6</sup> REGULATION (EU) No 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.

<sup>7</sup> 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).

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