



North Western Waters

Status and Potential Productivity of Fish Stocks

MAY 2017

Summary

The European Union is failing to responsibly manage its fish resources. Despite several international commitments¹ and EU framework regulations² on sustainable fisheries, the status of fish stocks is still far from being considered as healthy. Overfishing in the EU continues to affect a large proportion of fish stocks³.

In the North Western Waters (NWW) the situation is equally worrying. Only a small number of fish stocks - 10 stocks out of 47- (21%) are considered in line with the Common Fisheries Policy (CFP) commitments. This means having a biomass above healthy levels ($B > B_{msy}$) and fishing mortality not subject to overfishing ($F < F_{msy}$).

Regrettably, this condition poses a clear threat to the status of the fish stocks and leads to the under-exploitation of these resources. By contrast, in a well-managed, long-term sustainable scenario, fisheries in the North Western Waters could increase catches by 87%.

The status of North Western Waters' fish stocks and fisheries can be summarised as follows:

- 77% of fish stocks have an unhealthy level of biomass.
- 49% of fish stocks are overfished.
- Only 21% of fish stocks are in line with the CFP's sustainable fishing objectives.
- If fish stocks were well managed, catches could increase by 87%, or 200,000 tonnes.

EU Member States must act without delay to recover fish stocks and exploit them in a sustainable way. To do that, they should abandon short-sighted socio-economic arguments and adopt management measures in line with scientific advice. The positive benefits of exploiting fish resources in a sustainable way are clear, not only for the status of fish stocks but also for the European fleet operating in this area.

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Background information

The North Western Waters (Figure 1) comprise the ecoregion known as the Celtic Sea, covering mainly the areas of the west of Scotland (ICES Subarea VIa), Rockall (VIb), the Irish Sea (VIIa), west of Ireland (VIIb), as well as the proper Celtic Sea (VIIc-k) and western Channel (VIIe). It includes areas of the deeper eastern Atlantic Ocean and coastal seas that are heavily influenced by oceanic inputs. Throughout this region the continental shelf is of variable width⁴.

Demersal and pelagic fisheries occur in most parts of the North Western Waters region and, in particular, in the Exclusive Economic Zones (EEZs) of France, Ireland and UK, although other Member States like Spain, Belgium and the Netherlands are interested in the region's fisheries as well.

Given this geographical scope, most fisheries in the region are managed through the EU Common Fisheries Policy (CFP), although some others are managed by international fisheries management organizations like NEAFC, ICCAT, or NASCO, and by coastal state agreements⁶. Scientific advice for the adoption of management measures on collective fisheries is provided mainly by the International Council for the Exploration of the Sea (ICES) and the European Commission's Scientific Technical and Economic Committee for Fisheries (STECF), together with other national institutions⁴.

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To date, the state of fish stocks has been made mainly on the basis of the 26 shellfish, demersal, and pelagic fish stocks for which scientific advice related to the maximum sustainable yield (MSY) was available.

According to ICES⁴, overall fishing mortality (F) for these stocks has showed a reduction trend during the last two decades, and although 15 stocks seems to be currently sustainably exploited, overfishing still affects 11 stocks (42%) and the average F is still above MSY level. As the F trend has reduced, the relative spawning-stock biomass has increased.

Nevertheless, a number of stocks still have very low stock biomasses, namely cod (*Gadus morhua*), haddock (*Melanogrammus aeglefinus*), and whiting (*Merlangius merlangus*) to the west of Scotland, cod and sole (*Solea solea*) in the Irish Sea, and herring (*Clupea harengus*) in ICES Divisions VIa, VIIIb, and VIIc.

*In the west of
Scotland, cod,
haddock and whiting
have very low stock
biomasses*



Fishing vessels in the port of Padstow, United Kingdom. © OCEANA/ Ester Casado

New overview of the status of fish stocks

Owing to a limited number of stocks being assessed up to now, the status North Western Waters fish stocks has therefore been incomplete and made it difficult to effectively monitor the real outcomes of agreed management decisions and the performance of the Common Fisheries Policy goals. For first time ever the results of a scientific study⁵ commissioned by Oceana provides a much clearer picture of the status of North Western Waters fish stocks covering the majority of exploited stocks, specifically 47 stocks of 18 species. The assessments were focused on the status of fish stocks in terms of biomass and fishing pressure, and provide an estimation of the potential productivity of the fish stocks in a recovery and well-managed scenario (within the context of the legal requirements).

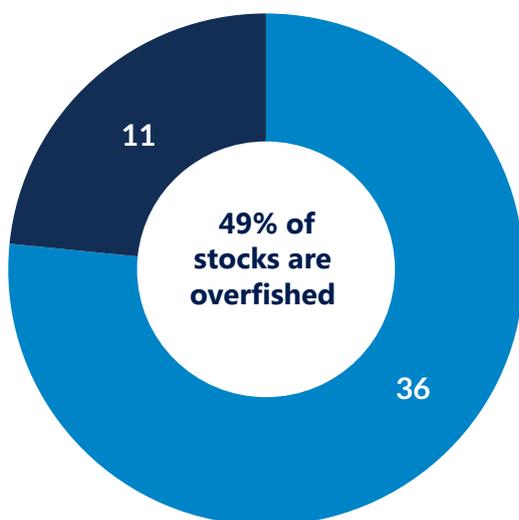
Stock biomass for most of the North Western Waters fish stocks is considered to be below healthy levels. Only 11 fish stocks (23%) are above healthy levels and fulfil the legal requirements ($B > B_{msy}$). For the rest of the 36 stocks (77%), fish biomass is in a worrying condition (Mean value of the B/B_{msy} ratio is 0.67).

Of particular concern is the status of 19 stocks (40%) for which the biomass is outside safe biological limits ($B < 0.5 B_{msy}$). Among these stocks, 7 (15%) are in a severely depleted critical condition ($B < 0.2 B_{msy}$), with potentially negative consequences for their reproduction.

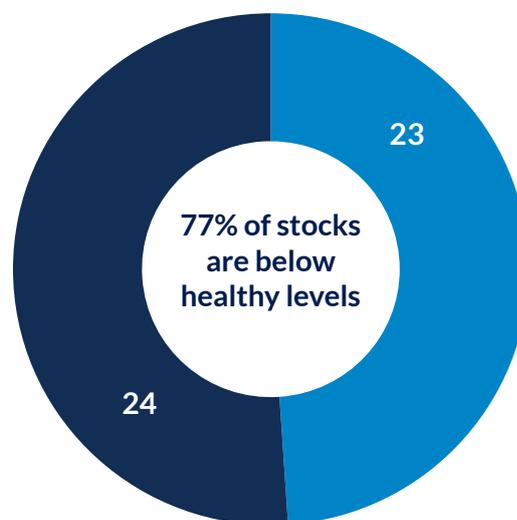
Stocks in very bad condition showing the lowest biomass levels include plaice in the Celtic Sea South and Southwest of Ireland, red seabream in the whole region, sole in the Irish Sea, or cod in Rockall and Northwest of Scotland and North Ireland.

Stocks in good condition showing healthy biomass levels ($B > B_{msy}$) are, for example, plaice in the Irish Sea, Celtic Sea and Western English Channel, sprat in the English channel, whiting in the Celtic sea and Southwest of Ireland or Norway lobsters in Celtic Sea and Bristol Channel.

7 fish stocks are in a severely depleted critical condition, with potentially negative consequences for their reproduction.



- Stocks below healthy levels
- Stocks above healthy levels



- Stocks overfished
- Stocks sustainably exploited

Although fishing pressure has showed a decreasing trend for some stocks during the last years, mainly since late 1990s, overfishing ($F > F_{msy}$) still affects 23 (49%) of North Western Waters fish stocks, jeopardizing the recovery of fish biomass and the sustainable exploitation of the stocks (Mean value of the F/F_{msy} ratio is 1,96). Examples of stocks heavily overfished include Norway lobster in the West of Ireland, plaice in Celtic Sea South and Southwest of Ireland, red seabream in the whole region, sole in the Celtic Sea and cod in Rockall and Northwest of Scotland and North Ireland.

The situation of these fish stocks clearly goes against the management objectives of the CFP, in particular against the objective to maintain fish resources above levels capable of producing MSY by 2015 where possible, or at the latest by 2020. In fact, only 10 (21%) fish stocks are considered to be exploited according the legal requirement, this means having a biomass above healthy levels ($B > B_{msy}$) and fishing mortality not subject to overfishing ($F < F_{msy}$). For the rest of the 37 (79%) fish stocks, they are either in a recovery trend towards these conditions (9 stocks 19%) or they remain overexploited (28 stocks 60%).

This situation implies that most of the current catches in the North Western Waters are taken from stocks that have shrunk over the years due to fishing rates above sustainable levels. Therefore, there is a need to reduce fishing pressure to put the stocks above healthy levels in the short term and once recovered, exploit the stocks by maximizing their long-term catches.

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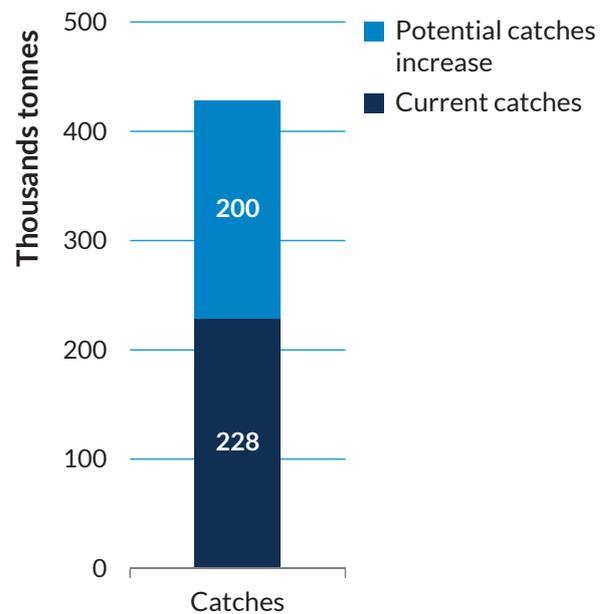
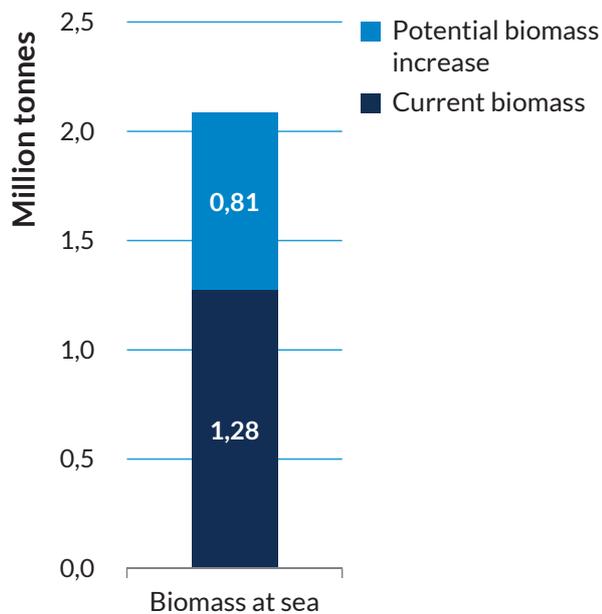
Fish pots in a small port. Inishmore, Aran Islands, Ireland © OCEANA/ Ángeles Sáez

Positive consequences of a recovery and well-managed scenario

In a recovered and well-managed scenario, the status of North Western Waters fish stocks and productivity of fisheries can radically change.

A full recovery of fish stocks would mean that the total sum of the biomass at sea would increase from 1.28 million tonnes to 2.08 million tonnes, which would be a 63.4% growth in biomass.

Rebuilding fish stock biomass above healthy levels will take a few years for most stocks. The time to recover depends on the current biomass level of the stock and how much the exploitation rate is reduced below the sustainable levels ($F < F_{msy}$) during the rebuilding phase. For example, according to the referred study⁷, exploitation at half the MSY-level should rebuild most stocks in 1-5 years.



This potential recovery of the stocks would provide the possibility to increase catches in a sustainable way from the current 228 thousand tonnes to 475 thousand tonnes.

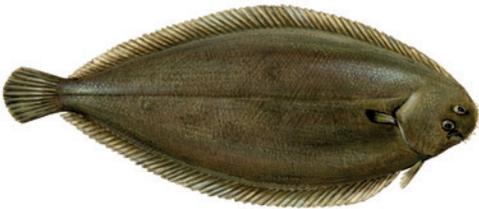
Nevertheless, due to trophic interactions among species, this potential catch figure has to be reduced precautionarily to 428 thousand tonnes, representing an increase of 87.5%. The increase in catches in a recovery and well-managed scenario would be significant for a group stocks, both in absolute terms and in relative terms.

Stock examples with high potential increase of catches

Stock examples

Current catches

Potential increase



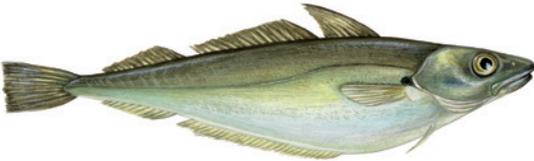
Sole in the Irish Sea

76 t	2831 t
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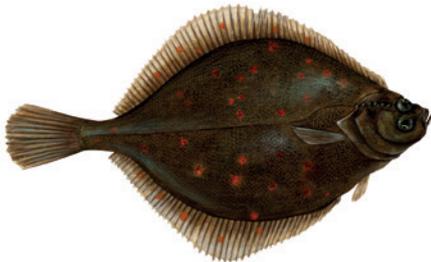
Cod in the Irish Sea

385 t	8735 t
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Whiting in the West of Scotland

1062 t	13943 t
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European plaice in Celtic Sea (S) and SW of Ireland

33 t	259 t
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Haddock in Rockall

2972 t	15265 t
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Herring in VI, VIIbc

19885 t	83109 t
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Illustrations:
© Scandinavian fishing year book

Conclusions and recommendations

The status of fish stocks in North Western Waters region is not in a good condition as a significant proportion of the stocks are below healthy levels and fishing mortality rates are above sustainable levels. The situation is seriously jeopardizing the achievement of the legally binding commitments of the CFP, in particular to ending overfishing by 2020 the latest.

The worrying status of fish stocks is not only putting at risk the health of the North Western Waters but also leading to the under exploitation of fish resources. However, in a recovery and well managed scenario, in line with the legal requirements, the status of the fish stocks would drastically change and could lead to a significant increase of 87% in sustainable catches, with positive socio-economic benefits for the fishing sector.

Member States with fish management competences in the region have all the necessary elements for the successful development of sustainable fisheries. Member States should give up the short term approach used so far and instead focus their efforts on recovering the productivity of fish stocks.

Management measures such as the setting of fishing opportunities in line with scientific advice, the adoption of multiannual management plans based on CFP principles, the protection of essential fish habitats and the use of selective and low-impact fishing practices will definitely contribute to recovering and exploiting the North Western Waters' fish resources in a sustainable manner.



Fish stand at the English Market, Cork, Ireland.
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References

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