
STRONG OVERSEAS, WEAK AT HOME

Why **real marine protected areas**
and better managed UK fisheries
are essential for climate, nature,
food and jobs

PARLIAMENTARY BRIEFING, NOVEMBER 2021



BLUE MARINE
FOUNDATION



SUMMARY

All life on Earth depends on the health of our ocean. However, the ocean is in crisis, pushed to its limits by overfishing, which is threatening the ocean's capacity to provide its vital functions of providing oxygen, absorbing CO₂ and regulating the Earth's temperature.

Overfishing is as much a problem in the UK as it is anywhere else in the world.

While many of the UK's Overseas Territories enjoy world class marine protection under the *Blue Belt Programme*, the UK's domestic waters are still badly over-exploited, with highly destructive fishing practices still taking place within almost all of the so-called marine protected areas (MPAs) around the UK coast.

As the UK is no longer in the EU Common Fisheries Policy, the Government has the ability to stop overfishing throughout UK waters and ensure effective marine protection, allowing marine life to rebound, increasing carbon stores and supporting sustainable livelihoods **but we need your support in Parliament to make this happen.**

This document sets out the major threats facing our ocean, the steps the UK has taken, the vital work which remains to be done, and the opportunities for action ahead.

The time for action is now. We hope that you will support the work of Blue Marine Foundation and other conservation advocates in speaking up for marine protection in Parliament.

Overfishing is as much a problem in the UK as it is anywhere else in the world



FOUR POLICY RECOMMENDATIONS

1

The UK Government must ensure fishing is conducted sustainably by not setting quotas in excess of scientific advice.

2

The UK Government must ban bottom-towed gear and all destructive gear types from all Marine Protected Areas.

3

The UK Government should implement at least ten no-take MPAs as defined by the Benyon Review on Highly Protected Marine Areas.

4

The UK Government must quantify, and appropriately protect, the climate value of the UK seabed.



INTRODUCTION

The stability of our climate system, and therefore all life on Earth, depends upon a healthy ocean.

The ocean has absorbed a third of the carbon dioxide (CO₂) emissions produced by human activities over the past two centuries and captured 90 per cent of the extra heat trapped by increased greenhouse gas levels.¹ It is the world's largest carbon sink, holding 50 times the amount of carbon than the atmosphere and more than 10 times the amount of carbon held in all terrestrial vegetation, soils and microbes combined.² Every second breath you take comes from the ocean.³

The ocean and the wildlife within it are also inherently valuable in and of themselves. While

many people may not feel as connected to the ocean and its wildlife as they are to terrestrial nature and landscapes, marine wildlife is every bit as special and we should not allow it to be destroyed just because it is beyond our sight.

OUR OCEAN IS IN CRISIS

Contrary to popular belief, it is not in fact plastic pollution which poses the greatest threat to the ocean. By far the biggest issue is overfishing.⁴ Almost 94 per cent of commercial fish stocks are already fully or overexploited globally and 90 per cent of large predatory fish are gone.⁵ Overfishing is a global issue, but not a distant

one: only three of the top ten fish stocks which the UK industry relies on are in a healthy state and not overfished.⁶

An overfished ocean is a less resilient one. As the ocean is continuously besieged by rising heat and CO₂ levels, those threats are compounded by overfishing which, in stripping the ocean of life, reduces its capacity to produce oxygen, absorb carbon dioxide and regulate the climate.

THE UK IS A MAJOR CULPRIT IN OVERFISHING

The continuous setting of fishing quota above scientific advice undermines claims of environmental leadership and impacts our ability to secure commitments from others. This problem of fishing beyond scientific limits has persisted after Brexit.

Given what is at stake, it is time for the threat of overfishing to rise up the political agenda

with parliamentarians across parties speaking out and advocating for marine protection. Networks of well-managed Marine Protected Areas (MPAs), including highly protected or 'no take' zones, provide win-win solutions by limiting overfishing, providing space for marine life to rebound, and preserving carbon stores. But many MPAs around the UK coast are little more than lines on a map, allowing even the most destructive of fishing methods to take place within.

Less than one per cent of UK waters are fully protected and 97 per cent of the UK's offshore MPAs are subjected to destructive practices such as bottom-trawling (dragging nets along the sea floor) and dredging (raking the sea floor with a steel scoop with a mesh net).^{7,8}

IT IS TIME TO MAKE SURE THE UK'S MARINE PROTECTION NETWORK DELIVERS

Contrary to popular belief, it is not in fact plastic pollution which poses the greatest threat to the ocean. By far the biggest issues are overfishing and climate change

Less than **1%** of UK waters are fully protected

OF THE UK'S OFFSHORE MPAS ARE SUBJECTED TO DESTRUCTIVE PRACTICES

97%

INTRODUCTION TO BLUE MARINE FOUNDATION

Blue Marine Foundation (BLUE) is a charity dedicated to restoring the ocean to health by addressing overfishing, one of the world's biggest environmental problems.

Our vision is a healthy ocean forever, for everyone. We are dedicated to creating marine reserves, restoring vital habitats and establishing models of sustainable fishing.

BLUE's mission is to see at least 30 per cent of the world's ocean under effective protection by 2030 and the other 70 per cent managed in a responsible way. Along with our partners in the Great British Oceans coalition, BLUE has played a key role in securing commitments to protect over four million square kilometres of ocean across the UK Overseas Territories.



BLUE MARINE FOUNDATION

KEY FIGURES

Why we need to protect the ocean.

50%

of Earth's oxygen
is produced by the
ocean, or one in two
of our breaths comes
from the ocean⁹

1/3

of anthropogenic CO₂ and
90% of additional heat is
absorbed by the ocean¹⁰

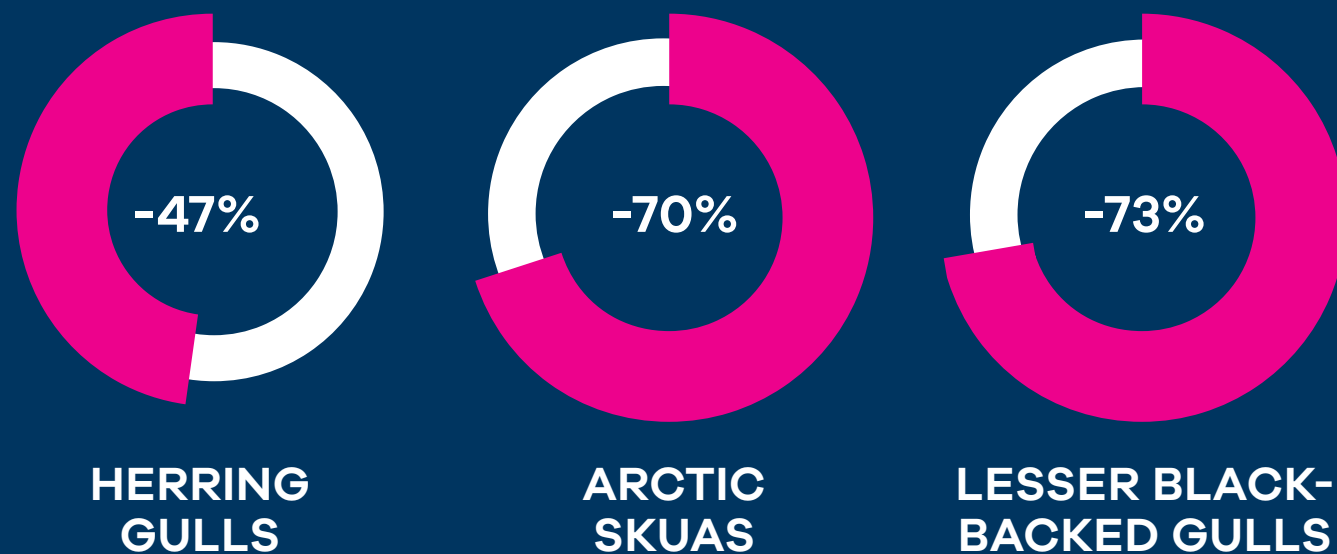
THE STATE OF UK WATERS

Just 3 in 10 of the most valuable UK fish stocks are in a healthy state and not overfished.¹¹ The UK government is currently failing against 11 of 15 of its own indicators of ocean health.¹²

Cod landings have declined by 87%, hake by 95% and halibut by 99.8% since the 1890s, when fossil-fuel powered bottom trawling began.¹³



Since just 2000, herring gulls have declined by 47%, arctic skuas by 70%, and lesser black-backed gulls by 73%.¹⁴



71% of the UK public think bottom trawling should not be allowed in Marine Protected Areas²¹

More than

10000

whales, dolphins and porpoises die in fishing gear in UK seas every year¹⁵

Government claims that 38% of UK waters have protected status,¹⁶ yet less than 1% of UK waters are fully protected from human activity¹⁷ and 97% of the UK's offshore MPAs are subjected to destructive bottom trawling and dredging¹⁸

IN LYME BAY, ONE OF THE UK MPAS WHERE TRAWLING IS BANNED, THERE IS

370%

MORE FISH INSIDE THE MPA THAN OUTSIDE ITS BOUNDARIES²⁰

A maximum of 4% of England's seas are in MPAs that could be said to be effectively managed¹⁹

HMG still allows the most destructive type of fishing to take place in 62 out of 64 of the UK's so called "protected areas"

64

offshore protected areas

62

subject to trawling

The ocean has absorbed 90 per cent of additional heat and approximately a third of human CO₂ emissions, leading to surface layers becoming 26 per cent more acidic since pre-industrial times



THE STATE OF UK SEAS

The UK is responsible for significant overfishing.

A 2020 study found the UK responsible for the highest quantity of overfishing in Europe, landing nearly two million tonnes of fish above sustainable levels.²² Six out of the top ten stocks relied upon by the UK fishing industry, including North Sea cod and Eastern English Channel scallops, are overfished or at critical levels.²³ This has consequential impacts on the wider food web, for example the overfishing of North Sea sandeel, a key food source for breeding seabirds, is a key driver of the halving of kittiwake numbers since the 1960s.²⁴

This decline is not only an environmental crisis but also poses a threat to the jobs and communities of fishermen around the country.

THE OCEAN AND CLIMATE CHANGE

The ocean as a solution: keeping global warming to 1.5 degrees C requires a healthy ocean

The ocean has absorbed 90 per cent of additional heat and approximately a third of human CO₂ emissions, leading to surface layers becoming 26 per cent more acidic since pre-industrial times.^{25,26} Without this absorption, our societies would already have seen much more catastrophic impacts of climate change. However, the ocean's ability to regulate our climate is not limitless. As water warms, it loses its capacity to absorb CO₂ and in fact begins to release it. The ocean's role in climate regulation is also not without consequences: warming and acidification pose major threats to marine life, perhaps most vividly illustrated by the destruction of coral reefs.

Much of the ocean's ability to regulate climate is due to marine life, which captures and stores significant amounts of carbon. As a result, overfishing and population decline greatly reduce the ocean's carbon storage potential.

Communities of marine life which have reduced diversity and population size due to overfishing are also known to be less resilient to climate change impacts.

Additionally, certain forms of fishing, particularly bottom-trawling, disturb seabed deposits where carbon is stored, therefore actively releasing carbon emissions into the waters column and then back into the atmosphere. Recent research found that, globally, bottom-trawling produces one billion tonnes of CO₂ a year.²⁷ Yet these emissions they do not yet feature in any nation's carbon accounting. At the UK level, trawling emissions are estimated to be approximately 19 million tonnes a year, equivalent to 4 per cent of national emissions.²⁸ This evidence suggests that bottom trawling requires much greater consideration within Net Zero planning.

The ocean is one of the world's largest carbon sinks.

By combatting overfishing and allowing marine life to flourish, we allow the ocean to perform its vital function of stabilising the Earth's climate. Therefore, well-managed marine ecosystems must be a crucial component of any climate change mitigation strategy. Protecting the seabed and other carbon-storing habitats from damage by bottom trawling would cut off a major direct source of emissions and allow those carbon stores to build up again.

Recent analysis has shown that ocean-based climate solutions could resolve 21 per cent of the 'emissions gap' – the difference between our current global trajectory (that will result in more than three degrees C of warming) and emissions consistent with limiting temperature increase to 1.5 degrees C.²⁹



WHAT IS OVERFISHING?

Overfishing is defined in relation to the concept of 'Maximum Sustainable Yield' (MSY): the largest catch that can be replaced through reproduction over a theoretically indefinite period, therefore not threatening its survival.

A common control measure is Total Allowable Catch (TAC): an overall catch limit established by regulators for a particular fishery, based on scientific advice, in order to maintain or rebuild that fish stock thereby ensuring it does not drop below sustainable levels.

Quotas are portions of that overall TAC which are allocated, for example, to countries by the EU or to fishers at the national level.

Where quota is set above scientific advice (MSY), then the stock is overfished.

HOW DOES THE OCEAN ABSORB CARBON?

Oceans absorb carbon dioxide (CO₂) in three key ways:

1. CO₂ dissolves directly into the water from the atmosphere.
2. Marine life, such as plankton, photosynthesises and turns CO₂ into sugar and oxygen – just as plants do on land.
3. Carbon gets stored on the ocean floor when sea life such as whales, fish, and plankton defecate and when they die and sink to the bottom, accumulating into a carbon-rich ocean floor sediment.

The ocean floor stores more carbon than all the soil on Earth put together

HOW DOES BOTTOM-TRAWLING RELEASE CARBON EMISSIONS?

Bottom-trawlers catch fish by dragging nets along the seabed. This process disturbs the carbon stored in sediment, releasing it into the ocean as CO₂. On average, bottom-trawling releases around one billion metric tons of CO₂ into the ocean each year. This is more than is emitted into the atmosphere by global aviation. Scientists believe that a substantial proportion of this is then released into the atmosphere from the ocean, contributing directly to global warming.

As well as this direct effect, ocean water itself already absorbs more than a third of annual global CO₂ emissions. Releasing lots of CO₂ into the ocean by bottom trawling reduces its capacity to absorb it from the atmosphere. In addition, the CO₂ contributes to ocean acidification, harming wildlife.

The UK is estimated to release around 19 million metric tons of CO₂ a year from bottom trawling, equivalent to 4 per cent of all UK GHG emissions.

HOW CAN WE PROTECT MARINE LIFE IN UK WATERS?

The good news is that overfishing is one of the world's most solvable environmental challenges. Marine life has a remarkable ability to rebound, supporting thriving ecosystems, sequestering carbon, stabilising climate, and providing sustainable coastal livelihoods – but it cannot do so alone.

The solutions are proven and relatively simple:

1. Effectively managing at least 30 per cent of the ocean as Marine Protected Areas where marine life can recover.
2. Fishing within sustainable limits in the other 70 per cent of the ocean.

First, the UK needs to tackle overfishing in its waters, to protect marine life and mitigate climate change. Sustainable fishing also creates more jobs and opportunities than unsustainable fishing. It is fundamental that Total Allowable Catches (TAC) and quotas must not be set

above scientific advice. Additionally, further management measures are needed to improve sustainability as the UK develops its own fisheries policy, including but not limited to new catch limits, bycatch avoidance measures and rollout of electronic monitoring via cameras on all vessels.

However, fisheries management alone is not enough, largely because it is focused principally on the target species rather than broader ecosystem health. Furthermore, not all stocks are managed through the system of TACs and quota.

For example, the majority of shellfish stocks are non-quota, meaning there is no maximum total amount of those species that can be caught.

Fisheries management on its own is not sufficient to maintain healthy seas. If it were, UK and EU stocks wouldn't be in the lamentable state they are currently in. Well-managed and properly enforced Marine Protected Areas (MPAs) are also needed.

MPAs are most effective when they form part of an ecologically connected network, creating greater resilience to changing conditions. These networks should include no-take zones, or Highly Protected Marine Areas, as recommended by the recent *Benyon Review*.³⁰ These areas prohibit any extractive activity, including fishing, meaning that marine life can rebound quicker and more fully without disturbance. These closed areas act like a 'fish bank' that spill biomass over into surrounding fishing grounds.

AT LEAST
30%
OF THE OCEAN SHOULD BE
WITHIN PROTECTED AREAS
WHERE SEA LIFE CAN RECOVER

THE OTHER
70%
SHOULD BE FISHED SUSTAINABLY

MPAs are most effective when they form part of an ecologically-connected network

THE BENEFITS OF WELL-MANAGED AND PROPERLY PROTECTED MARINE PROTECTED AREAS INCLUDE:

1. **Protection and restoration of marine life and fish stocks:** Biodiversity has been found to be up to 21 per cent higher,* and **total biomass up to 600% higher,**** in fully protected areas versus surrounding waters.
2. **Re-establishment of a balanced and functioning ecosystem**
3. **Enhanced resilience to climate change:** Marine reserves have been described as 'insurance':*** by limiting direct pressures and enhancing diversity, they give marine life the best chance of developing and adapting to changing conditions.
4. Carbon sequestration and storage
5. **Provision of resources and services, for example:**
 - A 'spillover effect' has been demonstrated for many Marine Protected Areas, whereby the movement of increased numbers of fish from those areas into surrounding fishing grounds benefits fishers.
 - Better management of UK MPAs could deliver up to £10.5 billion of recreational and other benefits.****

*Marine Conservation Society, 2021, **Sala et al., 2018, ***Roberts et al., 2017, ****WWF, 2021.

CASE STUDY: LYME BAY

The Lyme Bay Fisheries and Conservation Reserve was introduced in consultation with local fishers in 2012, with over 90 square miles protected from dredging and trawling.

Lyme Bay has seen a 52 per cent increase in the number of species since then and 370 per cent* more fish abundance inside the MPA than in the trawled area outside.

The "Reserve Seafood" brand was created to sell local produce and fishermen signed up to a code of conduct to fish within environmental limits to sell through the brand. Fishermen on the scheme have reported increased catches, increased selling prices, and higher job satisfaction.**



CASE STUDY: LAMLASH BAY

Lamlash Bay on the Isle of Arran is just over a square mile in size and is home to beds of a slow-growing coralline algae called maerl.

Following a hugely effective local community campaign, it was designated in 2008 as one of only four areas in the British Isles where all forms of fishing (including trawling and dredging) are banned.

As well as storing carbon, maerl provides a vital seabed habitat. Populations of both lobsters and scallops in the No-Take Zone have quadrupled since 2008, and other seaweeds have returned to the area. The area is also now a nursery for cod. Local residents have also benefited from growth in tourism to the area: the Octopus visitors centre was built in 2018 and hosted 11,000 visitors from 2018 to 2019.

Octopus visitors centre was built in 2018 and hosted 11,000 visitors from 2018 to 2019



90 sq mi

OVER 90 SQUARE MILES PROTECTED FROM DREDGING AND TRAWLING

* <https://phys.org/news/2021-09-marine-area-status-boost-fish.html>

** Lyme Bay Fisheries and Conservation Reserve Ecological and Fisheries Data, Blue Marine Foundation, November 2016

THE STATE OF UK FISHERIES POLICY

Strong overseas, weak at home.

The UK Government has taken some important and commendable steps, including designating vast Blue Belt Programme marine reserves around a number of the UK Overseas Territories and leading the Global Ocean Alliance to secure commitments to 30 per cent global marine protection from more than 100 countries around the world.

However, while the protection of UK Overseas Territories is hugely impressive it is not a replacement for action in domestic waters. The Government's claims of global leadership are undermined by the continuation of overfishing and poorly managed MPAs at home. There remains a substantial gap between rhetoric and reality.

The UK has a record of overfishing and setting quota beyond sustainable limits. However, having left the Common Fisheries Policy and now managing our waters independently, the UK has an opportunity to do things differently.

The UK's Marine Protected Area network looks good on paper, covering a total of 885,430 km² or 38 per cent of UK waters, but is not living up to its potential in terms of protecting marine life or carbon storage.³¹

In reality, many of the UK's designated MPAs do not remotely match what the public expects from a protected area: less than one per cent of UK waters are fully protected from human activity and a significant number of MPAs actually prohibit nothing at all.

Polling shows that 71 per cent of the UK public think bottom trawling should not be allowed in Marine Protected Areas.³² However, bottom trawling is in fact taking place in 97 per cent of the UK's offshore MPAs.³³

Indeed, fishing levels are often higher in MPAs than outside as they cover areas richest in fish which are therefore targeted most intensively if no restrictions are in place.³⁴ Few limitations on fishing, coupled with lacking management plans, limited monitoring and enforcement and low compliance means many of the UK's MPAs are little more than lines on a map.

Urgent action is needed to prevent overfishing and effectively protect UK waters, but there are many opportunities ahead to demonstrate leadership.

BLUE calls on all MPs to join us in securing action to end overfishing and ensure that UK waters get the protection they need, unlocking benefits for nature, climate and people.

To live up to claims of marine conservation leadership, the UK must immediately put a stop to catch limits being set above scientific advice.

BLUE calls on all MPs to join us in securing action to end overfishing and ensure that UK waters get the protection they need, unlocking benefits for nature, climate and people



WHAT NEEDS TO HAPPEN?

Upcoming opportunities for UK action on marine protection include:

- **Annual fisheries agreements:** Coastal states negotiations (October), Norway-UK-EU trilateral (November), Northeast Atlantic Fisheries Commission annual meeting (November), and UK-EU negotiations (December) (and annually thereafter) all present key opportunities to agree sustainable quota levels and impose limitations on destructive activity in UK waters.
- **Implementation of the Benyon Review:** With a wealth of evidence in favour of Highly Protected Marine Areas, there is no need for a piloting phase: the Government should implement these no-take zones with immediate effect.
- **Implementing the outcomes of Glasgow COP26 (from November 2021):** Given the considerable efforts other sectors of the economy are making to meet Net Zero, it will not be politically sustainable for the fishing industry to continue to emit millions of tonnes of CO₂ per annum from trawling.
- **Implementing the outcomes of the UN Convention on Biological Diversity (CBD) (from May 2022):** The UK must lead by example at home when calling for other countries to support the protection of at least 30 per cent of the global ocean by 2030. That must mean an end to overfishing in all UK waters and an end to the use of destructive gear types in all UK MPAs.

FOUR POLICY RECOMMENDATIONS

1 The UK Government must ensure fishing is conducted sustainably by not setting quotas in excess of scientific advice.

2 The UK Government must ban bottom-towed gear and all destructive gear types from all Marine Protected Areas.

3 The UK Government should implement at least ten no-take MPAs as defined by the Benyon Review on Highly Protected Marine Areas

4 The UK Government must quantify, and appropriately protect, the climate value of the UK seabed.



HOW CAN YOU HELP?

Our ocean needs your help in putting it on the parliamentary agenda, and inspiring others to take action.

BLUE hopes to identify MPs willing to speak up for our oceans in Parliament:

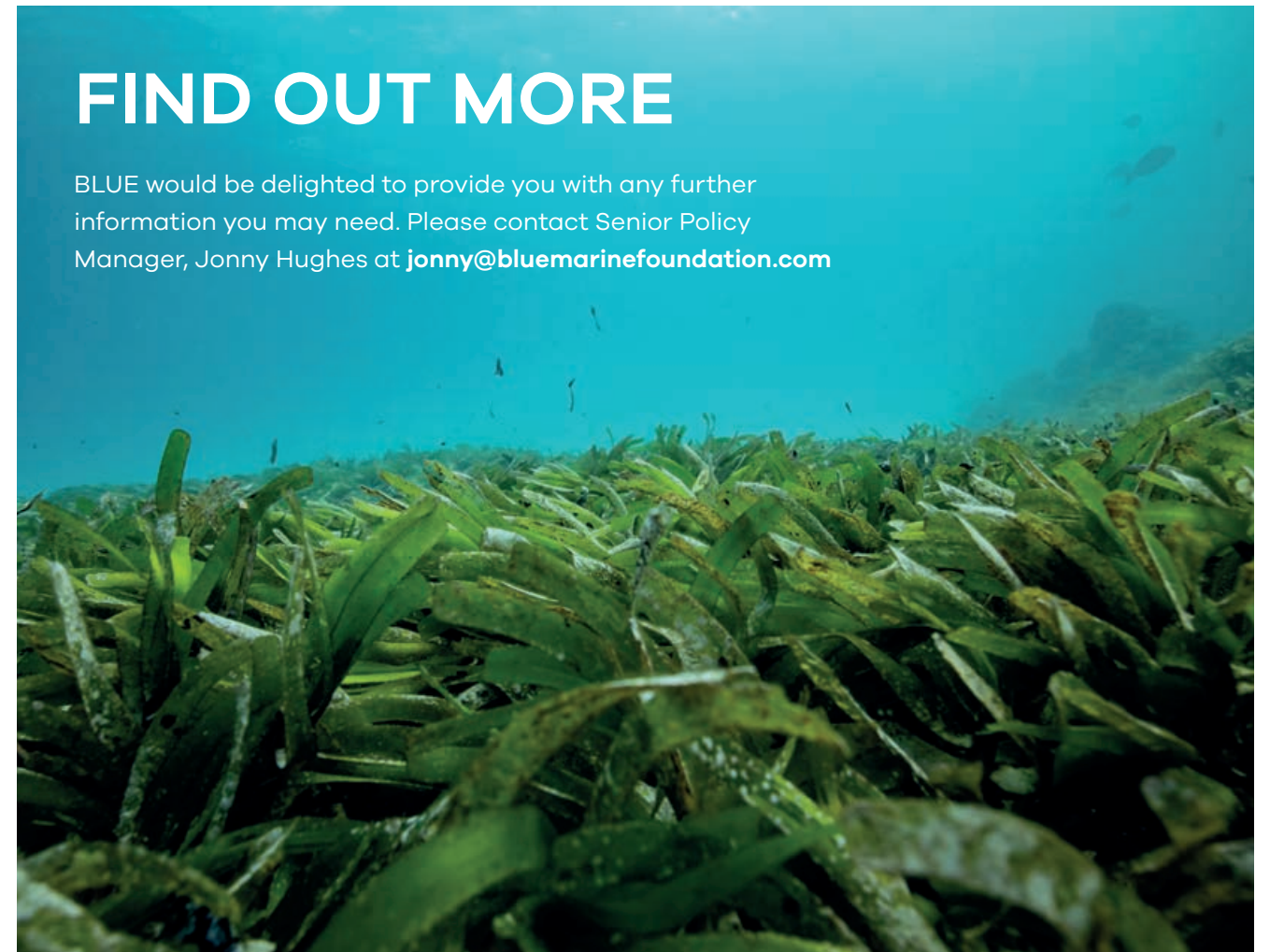
- In debates
- Through parliamentary questions
- In conversations with backbench and ministerial colleagues
- In shaping policy priorities and objectives
- By hosting events and raising awareness

We can support you in doing so by, for example:

- Providing briefings, talking points and access to experts to answer any questions
- Drafting questions, speeches and letters as needed
- Producing media and social media content to help you raise awareness around the need for marine protection
- Arranging visits to Marine Protected Areas, native species restoration sites and sustainable fisheries partnerships in the UK

FIND OUT MORE

BLUE would be delighted to provide you with any further information you may need. Please contact Senior Policy Manager, Jonny Hughes at jonny@bluemarinefoundation.com



BREXIT AND THE UK'S CONTROL OVER ITS WATERS

The UK is no longer a member of the EU Common Fisheries Policy (CFP) and so now independently manages its Exclusive Economic Zone (EEZ), which extends to 200 nautical miles (nm) (230 miles), or a median line*, from the coastline.

As a member of the EU, the UK had control to 12 nm with the remainder subsumed into the shared EU's EEZ, for which fishing policy was set collectively.

The CFP's mechanism of 'relative stability' that set fishing quotas according to what was fished from 1973-8 will gradually cease to apply for UK waters. The UK-EU Fisheries Framework Agreement sets out the following timeline:

2021-26: EU fleet's quota in UK waters will be reduced by 15 per cent of its value in 2021, rising to 25 per cent by 2026. This will raise the UK's quota in its own waters from around half to two thirds. EU fishing vessels with a record of fishing within 12 miles of the UK coast will be allowed to do so during this period.

2026 onwards: The UK and EU will negotiate quotas for the Total Allowable Catch for shared stocks each year and negotiate access to each other's waters. The UK can define its own position on what it wants TAC in UK waters to be. The agreement includes compensation measures (including tariffs on fish products) and a dispute resolution mechanism if either side reduces quotas or does not allow access to waters.

As an independent coastal state, the UK now also has control over its Marine Protected Areas (MPAs) out to 200 nm or the median line and it can therefore determine which fishing practices are, or are not, allowed within them. It is therefore now entirely within the UK's power to ban

dredging or bottom trawling from within all of its MPAs. Additionally, EU vessels wishing to fish in UK waters now require a licence from UK fishing authorities, rather than having automatic access rights. This allows the UK to implement licence conditions, such as the gear type the vessel uses.

*Where neighbouring coastal states are closer than 200 nm, a median line is defined equidistant from the two countries' coastlines to separate their respective exclusive fishing zones.

As an independent coastal state, the UK now also has control over its Marine Protected Areas (MPAs) out to 200 nm or the median line and it can therefore determine which fishing practices are, or are not, allowed within them

EU vessels wishing to fish in UK waters now require a licence from UK fishing authorities, rather than having automatic access rights

THE UK NOW ALSO HAS CONTROL OVER ITS MARINE PROTECTED AREAS (MPAS) OUT TO 200 NM OR THE MEDIAN LINE



REFERENCES

1. <https://www.worldwildlife.org/stories/how-climate-change-relates-to-oceans>
2. Honjo, S. et al. (2014). Understanding the role of the biological pump in the global carbon cycle: An imperative for ocean science. *Oceanography* 27(3):10–16, <http://dx.doi.org/10.5670/oceanog.2014.78>
3. <https://oceanservice.noaa.gov/facts/ocean-oxygen.html>
4. https://ipbes.net/sites/default/files/inline-files/ipbes_global_assessment_report_summary_for_policymakers.pdf
5. <https://www.blumarinefoundation.com/about/>
6. https://europe.oceana.org/sites/default/files/oceana_uk_fisheries_audit.pdf
7. <https://mpatlas.org/countries/GBR>
8. <https://www.theguardian.com/environment/2020/oct/09/revealed-97-of-uk-offshore-marine-parks-subject-to-destructive-fishing>
9. <https://oceanservice.noaa.gov/facts/ocean-oxygen.html>
10. <https://www.worldwildlife.org/stories/how-climate-change-relates-to-oceans>
11. https://europe.oceana.org/sites/default/files/oceana_uk_fisheries_audit.pdf
12. <https://www.mcsuk.org/ocean-emergency/facts-and-stats/>
13. <https://www.nationalfoodstrategy.org/>
14. <https://jncc.gov.uk/news/smp-seabird-stats/>
15. <https://uk.whales.org/2021/02/23/no-more-dolphin-porpoise-and-whale-deaths-in-uk-fishing-gear-join-us-in-saying-goodbye-bycatch/>
16. <https://jncc.gov.uk/our-work/uk-marine-protected-area-network-statistics/>
17. <https://mpatlas.org/countries/GBR>
18. <https://www.theguardian.com/environment/2020/oct/09/revealed-97-of-uk-offshore-marine-parks-subject-to-destructive-fishing>
19. https://www.wcl.org.uk/docs/WCL_Achieving_30x30_Land_and_Sea_Report.pdf
20. <https://phys.org/news/2021-09-marine-area-status-boost-fish.html>
21. https://docs.cdn.yougov.com/2gb7rhgoka/Greenpeace_Results_210412.pdf
22. <https://inews.co.uk/news/britain-highest-level-overfishing-europe-defra-investigation-423274>
23. <https://europe.oceana.org/en/press-center/press-releases/6-out-10-uk-fish-are-being-overfished-or-are-critical-state>
24. https://www.rspb.org.uk/globalassets/downloads/documents/campaigning-for-nature/rspb2021_the-case-for-stronger-regulation-of-sandeel-fisheries-in-uk-waters.pdf
25. <https://www.worldwildlife.org/stories/how-climate-change-relates-to-oceans>
26. <https://www.pnas.org/content/114/24/6167>
27. Sala et al. (2021) <https://www.nature.com/articles/s41586-021-03371-z>
28. Sala et al. (2021), <https://www.nature.com/articles/s41586-021-03371-z>, Note: The authors' model works on the assumption that all UK seabed areas have previously been trawled, lowering the carbon emissions from additional trawling
29. <https://www.wri.org/insights/4-ocean-based-solutions-advance-climate-action-through-ndcs>
30. <https://www.gov.uk/government/publications/highly-protected-marine-areas-hpmas-review-2019/benyon-review-into-highly-protected-marine-areas-final-report-executive-summary>
31. <https://jncc.gov.uk/our-work/uk-marine-protected-area-network-statistics/>
32. https://docs.cdn.yougov.com/2gb7rhgoka/Greenpeace_Results_210412.pdf
33. <https://www.theguardian.com/environment/2020/oct/09/revealed-97-of-uk-offshore-marine-parks-subject-to-destructive-fishing>
34. <https://www.theguardian.com/environment/2018/dec/20/marine-life-worse-off-inside-protected-areas-analysis-reveals>



**BLUE MARINE
FOUNDATION**

3rd Floor South Building,
Somerset House, Strand, London,
WC2R 1LA

+44 0207 845 5850
info@bluemarinefoundation.com
www.bluemarinefoundation.com

