30X30

FROM GLOBAL OCEAN TREATY TO PROTECTION AT SEA

GREENPEACE

PROTECT THE OCEANS

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Design: Solbi Doo and Andorphine Studio

Acknowledgements:
We acknowledge the sharing of data from Global Fishing Watch and thank them for their assistance with accessing and interpreting data.
We would also like to thank all the sources who made their data freely available.
Additional thanks must be given to all who gave invaluable input and helped with editing the text and especially Coralie Barbier, Louisa Casson, Leah Das, Ariana Densham, James Hanson, Arlo Hemphill, Ellie Hooper, Dr Miles Hoskin CIEEM, Yeonha Kim, Sebastian Losada, Pilar Marcos Rodriguez, Megan Randles, Nichanan Tanthanawit, Chris Thorne, Wei Zhou.

Humpback whales

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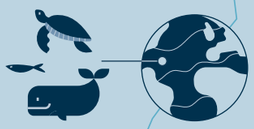
ACRONYMS

ABMT	Area-based management tool
ABNJ	Area beyond national jurisdiction
ACAP	Agreement on the Conservation of Albatrosses and Petrels
CBD	Convention on Biological Diversity
CBTMT	Capacity building and transfer of marine technology
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CCSBT	Commission for the Conservation of Southern Bluefin Tuna
CDR	Carbon dioxide removal
COP	Conference of the Parties
DOALOS	Division of Oceans and Law of the Sea
DSCC	Deep Sea Conservation Coalition
DSI	Digital sequence information
EBSA	Ecologically or Biologically Significant Marine Area
EIA	Environmental impact assessment
EEZ	Exclusive economic zone
FAO	Food and Agriculture Organisation of the United Nations
GBF	Global Biodiversity Framework
GEF	Global Environment Facility
HAC	High Ambition Coalition
HSA	High Seas Alliance
ICCAT	International Commission for the Conservation of Atlantic Tuna
IGC	Intergovernmental Conference
IMO	International Maritime Organisation
IOC	Intergovernmental Oceanographic Commission (of UNESCO)
IPCC	Intergovernmental Panel on Climate Change
ISA	International Seabed Authority
IUCN	International Union for the Conservation of Nature
IUU	Illegal, unreported and unregulated fishing

MCI	Marine Conservation Institute
MGR	Marine genetic resources
MOU	Memorandum of understanding
MPA	Marine protected area
NAFO	Northwest Atlantic Fisheries Organisation
NGO	Non-governmental organisation
NOAA	National Oceanic and Atmospheric Administration (US)
NPFC	North Pacific Fisheries Commission
POP	Persistent organic pollutant
RFMO	Regional fisheries management organisation
ROV	remotely operated vehicle
SAP	strategic action plan
SCRS	Standing Committee on Research and Statistics (of ICCAT)
SEA	Strategic Environmental Assessment
SEDA	socio-ecosystem diagnostic analysis
SPRFMO	South Pacific Regional Fisheries Management Organisation
SSC	Sargasso Sea Commission
SST	sea surface temperature
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNGA	United Nations General Assembly
UNOC	United Nations Ocean Conference
VME	vulnerable marine ecosystem
WCPA	World Commission on Protected Areas
WCPFC	Western and Central Pacific Fisheries Commission
WHOI	Woods Hole Oceanographic Institution
WSSD	World Summit on Sustainable Development

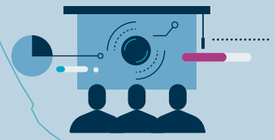
KEY FINDINGS



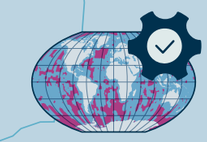
The Global Ocean Treaty is one of the most important international conservation agreements in history and the first focused on conserving marine life on the High Seas.

In this report, new analysis of rising pressures on the High Seas underlines the importance and urgency of protecting at least 30% of the oceans by 2030 using the Treaty. 11 million KM2 per year must be protected to meet the United Nations' 30x30 target that all nations agreed in 2022. The Treaty is the only way to deliver the 30x30 target at sea.

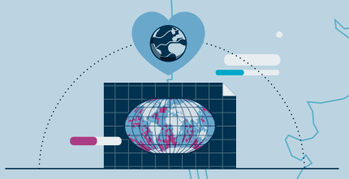
The oceans face large-scale threats and there is little time left to deliver 30x30. Swift action is needed. Governments must ratify the Global Ocean Treaty by the UN Ocean Conference in June 2025 to leave enough time to meet the 30x30 target.



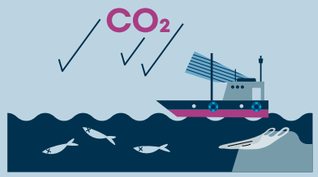
Alongside governments ratifying the Treaty, this report sets out the various institutional arrangements that must be set up. These include a Conference of Parties (COP) and a Scientific and Technical Body. A Preparatory Commission must be established, which can begin implementing the Treaty.



Governments must also begin to develop the first ocean sanctuary proposals alongside ratification. Work on these steps must start immediately. Delay would risk the timely and full implementation of the Global Ocean Treaty and jeopardise 30x30.

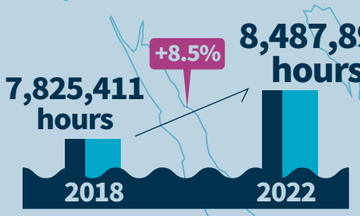


This report sets out the political process for using the Treaty to deliver Marine Protected Areas (MPAs) on the High Seas – from first submitting an MPA proposal to the COP to implementing and establishing a new MPA.

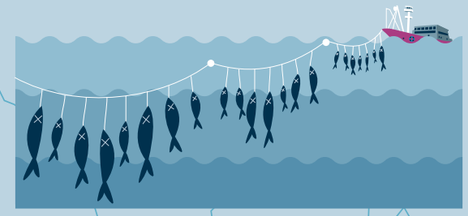


Threats to the oceans are diverse and severe, and are having wide reaching impacts on the health of the oceans. These threats include: ocean acidification, deoxygenation andwarming; pollution, including plastics; shipping; the looming threat of an emerging deep sea mining industry; and industrial fishing.

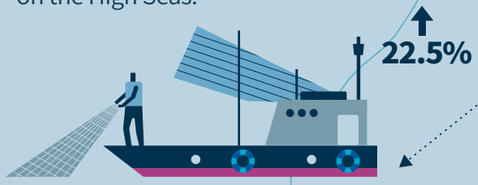
This report includes new analysis that shows the extent of High Seas industrial fishing activity over the last five years. It details the vast scale of High Seas fishing and provides a snapshot of fishing activity in areas recommended for protection under 30x30.



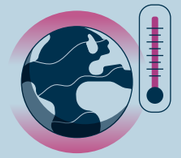
Using data from Global Fishing Watch, Greenpeace International investigators estimated that High Seas fishing hours increased by around 8.5% (662,483 hours) between 2018 and 2022. In 2022, industrial fishing vessels spent a total of 8,487,894 hours fishing on the High Seas.



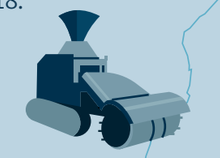
Longliners, squid jiggers and trawlers were the most common gear types. Longliners made up over ¾ of total fishing activity on the High Seas globally. These vast lines have thousands of baited hooks and can be over 100KM long. This destructive gear type results in high levels of bycatch as it hooks anything in its path.



In the areas recommended for protection *in 2019's* Greenpeace International report *30x30: A Blueprint for Ocean Protection*, there were 2,938,182 fishing hours in 2022 – a 22.5% (541,607 hours) increase from 2018.



Ocean temperature levels have broken records in 2023. Heating coupled with acidification and deoxygenation is changing the chemistry of the oceans. This has vast and wide-reaching impacts on ocean ecosystems and biodiversity, as well as disrupting the vital role oceans play in regulating this planet's temperature and climate.



Deep sea mining poses a significant new threat to the High Seas. Many governments now support a moratorium (ban) on deep sea mining. It is vital this dangerous industry is not permitted to add yet another threat to the health of the oceans.

Pollution, including plastics, continues to worsen. This is having devastating impacts on marine life and ecosystems. Shipping leads to chronic oil and noise pollution on the High Seas and there is always a risk of accidents and spills.

Three high-priority sites are presented as case studies for protection under the Global Ocean Treaty. These sites are: the Sargasso Sea, Emperor Seamounts and South Tasman Sea / Lord Howe Rise. All sites are critically important in terms of biodiversity and experience severe impacts from climate change and industrial fishing. We set out the cumulative pressures on these ecologically -significant areas, then map how each can be protected under the Treaty.

Governments urgently need to take action to protect the High Seas and deliver 30x30. The vast and ever increasing fishing activity in ecologically-sensitive areas earmarked for protection makes this clear. Every year of delay, stacking pressures on the oceans grow. Consequences worsen for marine ecosystems and the billions of people who rely on healthy oceans for their food and livelihoods.

EXECUTIVE SUMMARY

By Callum M. Roberts, Professor of Marine Conservation at the University of Exeter, marine biologist, oceanographer and author.

History was made in March 2023, when the United Nations agreed a new Global Ocean Treaty.[1] Nearly 20 years of preparatory work and intensive international negotiations led to this agreement. The Treaty represents a rare triumph of multilateralism at a time when international relations are deeply strained by conflict. It proves the world can still unite to safeguard the natural ecosystems that keep our planet liveable for all.

However, that multilateral cooperation must continue at pace to fulfil the aims of the Treaty. Time is not on our side.

> **MULTILATERAL COOPERATION MUST CONTINUE AT PACE TO FULFIL THE AIMS OF THE TREATY.**

THE TREATY FILLS A KEY GOVERNANCE GAP

The Global Ocean Treaty fills a gaping hole in planetary governance and protection. It is designed specifically to conserve marine life beyond the 200 nautical mile limits of national jurisdiction. This region is commonly known as the High Seas and makes up an immense 61% of the world's ocean.

Under existing nature protection mandates within the UN Convention on Biological Diversity (CBD), countries must safeguard nature within their national limits and regulate activities of their nationals in international waters. But, until now, there has been no globally accepted means of creating protected spaces in international waters. Nor any regulatory body tasked with preventing the destruction of wildlife living in these seas. Regional and sectoral bodies – like Regional Fisheries Management Organisations, the International Seabed Authority or the International Maritime Organization – make up the current governance system regulating human activities at sea. But this fragmented governance has failed to efficiently protect the oceans.

With the High Seas making up almost two-thirds of the oceans, the consequences of this hole in nature protection are disastrous. For much of history, distant High Seas waters were spared the intensity of impacts seen in more accessible coastal waters. But this shifted in the last few decades. As coastal resources decreased and became increasingly regulated, the High Seas became a new frontier for industry to still enjoy riches with little oversight and few legal constraints. The result has been a modern replay of the overkill that devastated land-based wildlife when modern humans colonised uninhabited continents and islands.

Actor and activist Jane Fonda and Senegalese community leader Anta Diouf deliver a petition signed by over 5.5 million people demanding a strong Global Ocean Treaty to Rena Lee, president of the UN negotiations.

STRONG EVIDENCE AND COMBINED EFFORT LEAD TO THE TREATY

Whether direct targets of industry or collateral damage, spectacular, iconic High Seas species have experienced startlingly quick catastrophic collapses. For example, Pacific Leatherback turtles, Pacific Bluefin tuna and Oceanic Whitetip sharks all lost more than 90% of their population in less than 30 years. Entire habitats have been scraped from the deep slopes of seamounts, before scientists and explorers could even see or describe them, leaving them to piece together the losses from scattered remnants.

At first these losses remained unseen, but due to improvements in High Seas monitoring methods, growing scientific access, and effort, these shocking losses were gradually brought to public attention. Acting on this evidence, the path to the Global Ocean Treaty was laid through the combined and sustained efforts of coalitions of environmental organisations, including Greenpeace International, as well as enlightened and proactive leadership by concerned nations.

LEADERS MUST ACT QUICKLY TO PROTECT THE OCEANS

As this Greenpeace International report shows, fishing pressure across the world's oceans is immense, including in the areas earmarked for protection under 30x30. But these direct pressures combine with a background of worsening chronic stress from human-caused global change. This will devastate marine life without concerted international action on the drivers of change.

These drivers include:

- → greenhouse gas emissions and their consequences – warming, deoxygenation, declining productivity and acidification
- → chemical, noise and plastic pollution
- → growing shipping volumes

New emerging activities like deep sea mining make effective governance of international waters even more urgent.
Ocean sanctuaries – especially highly and fully protected areas free from all destructive activities – are fundamental to solving the present ocean crisis. They create space for:

- → marine life to recover and thrive, and build resilience to fast global change
- → protecting vast stores of blue carbon that can slow climate change
- → safeguarding the food and livelihoods of billions of people worldwide

WHY THE GLOBAL OCEAN TREATY CAN HELP

To address existing and emerging threats to High Seas biodiversity, the Global Ocean Treaty includes four major provisions:

- → Marine genetic resources, including access and benefit sharing
- → Area-based management tools, including Marine Protected Areas
- → Environmental impact assessments
- → Capacity building and the transfer of marine technology

The first part of the Treaty sets out the purpose, principles and definitions that apply throughout. Crucially, Parties are required to cooperate to achieve the Treaty's objectives, including "with and among relevant legal instruments and frameworks and relevant global, regional, subregional and sectoral bodies".[2] Article 7 references both the precautionary and polluter pays principles in application of the Treaty. The preamble affirms nothing in the agreement will diminish or extinguish the existing rights of Indigenous Peoples.

The Treaty's provision for protected international spaces marks a leap forward for protecting biodiversity and reversing wildlife decline. It creates the preconditions to complete a global network of protected areas across land and ocean. These will secure the functioning, vitality and wonder of the biosphere for future generations and in perpetuity.

The final Global Ocean Treaty text was formally adopted at the United Nations on 19 June 2023. This started the process of bringing the Treaty into effect, which will only happen 120 days after 60 nations ratify, approve or accede to it.

Previous experience suggests this can take a long time. For example, the UN Convention on the Law of the Sea took 12 years to ratify. High Seas protection is long overdue, and the extreme need for effective protection grows by the day. This time around the global community must act urgently.

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Greenpeace USA activists project images onto New York's iconic Brookly Bridge, on the eve of the IGC5 where governments met to negotiate a Global Ocean Treaty.

NATIONS SHOULD RATIFY BY 2025 TO MEET THE 30X30 TARGET

> **WE URGE THAT NATIONS BRING THE TREATY INTO FORCE IN TIME FOR THE UN OCEAN CONFERENCE IN 2025.**

Achieving that will require sustained, intensive, multifaceted and focused effort by nations and civic society. This should mirror, or even exceed, the efforts that brought the Treaty into being.

One compelling reason for doing so is 30x30. This new target to protect 30% of sea and land by 2030 was set last year by the Convention on Biological Diversity in Kunming-Montreal.

That 30% target is impossible to achieve in the ocean if the High Seas are left out. A functional Global Ocean Treaty is essential to success – but the timescale is incredibly tight.

Aiming for ratification by 2025 would leave just five years to develop a High Seas network of protected areas. This will require effort and international collaboration on a scale never attempted before in any sphere of conservation. As the scientific journal Nature noted about the Treaty, to seize this once in a generation opportunity requires us to "use every idea and instrument available".[3]

PROPOSALS FOR PROTECTED SITES SHOULD START NOW

Planning for High Seas biodiversity protection should also begin. It cannot wait for Treaty ratification and establishment of its executive bodies and functions. We must implement a swift and coordinated joint effort to identify actions and candidate protected area proposals, at the same time as ratification. If not, a historic victory could become a historic failure.

Until the Treaty is implemented, the pressures on ocean health – overfishing and destructive fishing, pollution and global change – grow urgent and unabated. Our new analysis found a 22.5% increase in fishing hours between 2018 and 2022 in the ecologically-important areas recommended for protection under 30x30 in our 2019 modelling[4]. This makes clear the urgent need for action. With every moment of delay, the threats facing the high seas worsen.

> **IF WE DON'T RATIFY AND IMPLEMENT THE TREATY IN RECORD TIME, A HISTORIC VICTORY COULD BECOME A HISTORIC FAILURE.**

The plunder of the High Seas is ongoing and new industries wait in the wings. Ocean temperature records are being broken. Sea level rise and ice loss are speeding up. Tipping points approach, although we cannot tell how far off they are. Precaution demands urgency.

Greenpeace has been campaigning in West Africa for the establishment of a sustainable, low impact fisheries policy.

SCIENCE PROVIDES THE EVIDENCE TO DEVELOP PROPOSALS

To address the need for rapid progress, we propose that nations collaborate to produce candidate sites ready for scrutiny and discussion by the first COP. This must be held within one year of the Global Ocean Treaty's entry into force.

Fortunately, years of ongoing scientific description and evaluation of High Seas biodiversity provides a large and secure foundation of evidence for such proposals.

A 2006 Greenpeace International report *Roadmap to Recovery: A Global Network of Marine Reserves,* showed it was possible to identify high-priority areas for High Seas protection and sketch out the fundamentals of a robust protected area network for international waters – even with the understan-ding available at the time.

Many other NGOs and scientists have advanced the field rapidly since then, including the UN CBD. They launched a process to identify and describe Ecologically or Biologically Significant Areas (EBSAs) in 2010. This collaborative international effort has described over 320 EBSAs to date, many of which meet multiple suitability criteria to establish a protected area and/or apply other measures to safeguard their wildlife.

In 2019, leading academics at the University of York, University of Oxford and Greenpeace International published a new proposal for protection of international waters: *30×30: A Blueprint for Ocean Protection.* They took advantage of recent scientific advances in understanding the High Seas and their wildlife. The report employed cutting-edge network design tools to create proposals for climate-resilient, interconnected systems of protected areas and mapped out systems that reach every corner of the global ocean, and from surface to seabed.

THREE AREAS WITH A STRONG CASE FOR PROTECTION

In the report, we present and highlight three areas of the High Seas. These are strong candidates for rapid consideration as protected areas at the first COP.

- → Emperor Seamounts of the North Pacific
- → Sargasso Sea in the North Atlantic
- → South Tasman Sea/Lord Howe Rise in the southern hemisphere

> **THREE AREAS OF THE HIGH SEAS ARE STRONG CANDIDATES FOR RAPID CONSIDERATION AS PROTECTED AREAS UNDER THE TREATY: EMPEROR SEAMOUNTS OF THE NORTH PACIFIC, SARGASSO SEA IN THE NORTH ATLANTIC AND SOUTH TASMAN SEA/LORD HOWE RISE IN THE SOUTHERN HEMISPHERE.**

All are exceptionally important for wildlife and home to many rare and declining species, often only found there. All have experienced severe historic and ongoing impact from global fishing fleets. They are experiencing rapid and disruptive climate change and are threatened by emerging activities. Each has also been of long-term conservation interest and scientific study. The three sites were included in both 2006 and 2019 Greenpeace International proposals. They have gained many advocates and supporters among scientists, conservationists, citizens and at high political levels.

Humpback whale in the Great Barrier Reef

LAYING THE GROUNDWORK FOR OCEAN PROTECTION STARTS NOW

To make good on these and other proposals quickly, efforts must also begin now to build the executive functions of the Treaty. They include establishing:

- → a Conference of the Parties
- → a Scientific and Technical Body, and other subsidiary bodies of the Conference of the Parties
- → a Clearing-House Mechanism
- → a secretariat

Greenpeace International supports proposals for establishing a Preparatory Commission now to support the early implementation of the Treaty.

The Commission would be funded by the regular budget of the UN and operate under the Intergovernmental Conference's rules of procedure. It could draft key documents, agendas, rules of procedure, financial regulations etc. to lay the groundwork for how the agreement and its subsidiary bodies function. Without it, we risk delaying implementation of the Treaty by wasting time at the first COP, and probably following COPs, sorting out these items.

Protected areas are not the only urgent action required ahead of ratification of the Global Ocean Treaty. Right now, there is very little standing between the natural wonders of the deep ocean and mining machines. While more governments are stepping up efforts to stop deep sea mining before it begins, a handful of countries support this potentially calamitous industry. The impacts of mining would be severe, pervasive, enduring and irreversible, as concluded by the world's academic bodies. Hot on the heels of this historic Global Ocean Treaty, it is time for the world community to unite around a moratorium on deep sea mining to send a clear signal, that the era of ocean destruction is over – and the one of ocean protection has begun.

Fish among Sargassum Seaweed in the Sargasso Sea

Greenpeace International activists paint the word 'RISK!' on the side of a vessel chartered by a deep sea mining company. The Rainbow Warrior was in the Clarion Clipperton Zone to bear witness to the deep sea mining industry.

INTRODUCTION

The new Global Ocean Treaty made history in March 2023. This United Nations agreement is the most significant multilateral environmental deal since the 2015 Paris Climate Agreement. It is the first legally-binding Treaty targeted specifically at conserving marine life within the High Seas.[1] It is officially known as the 'Agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction'.

The High Seas are the international waters that lie beyond the national jurisdictions of coastal states. They comprise 61% of the world's oceans, making these waters the largest habitat on Earth. They are home to millions of species and ecosystems, and are crucial to many of the key processes that sustain life on our blue planet. Oceans play a vital role in mitigating climate change. But the High Seas are under increasing threat from a range of stressors, including industrial fishing, pollution and the emerging deep sea mining industry.[2]

Once ratified and it enters into force, the new Treaty will enable the creation of a global network of ocean sanctuaries – highly and fully protected marine areas – in the High Seas, giving marine life the space to recover and thrive.

The Global Ocean Treaty is a powerful tool that can help protect at least 30% of the oceans by 2030. The 30x30 target – enshrined in the Kunming-Montreal Global Biodiversity Framework (GBF) – was agreed by all governments under the Convention on Biological Diversity (CBD) in December 2022.[3]* This deadline is fast approaching so action must be taken quickly.

Governments must rapidly implement the Treaty and secure protection at scale. Previous experience suggests this can take many years – the UN Convention on the Law of the Sea took 12 years to ratify for example. This means a surge of political will is vital to realise the ambition behind the Global Ocean Treaty. There is no time to lose.

This report offers clear routes to action, backed up by new analysis. Chapters include:

- → The significance and provisions of the Global Ocean Treaty.
- → The increasing pressures and new threats for the High Seas – including updated data and analysis on fishing intensity, conducted with Global Fishing Watch.
- → Why States should adopt a twin track approach to implement the Treaty as soon as possible. Covering why they should ratify and develop the Treaty's architecture and processes, while also developing marine protected area (MPA) proposals.
  Three case studies and why these types of places should be among the first proposals for MPAs. These areas are: the Emperor Seamounts, the Sargasso Sea and the South Tasman Sea/Lord Howe Rise.
  Greenpeace's recommendations on the next steps
- → for ocean protection.
  How the Global Ocean Treaty was secured and
- → Greenpeace's involvement.

Sea Grass at Saya De Malha Bank in the Indian Ocean

* The 30x30 protection target is the target for protecting at least 30% of the world's ocean by 2030 which according to the science is the minimum level of protection needed to ensure ocean health.

HOW THE GLOBAL OCEAN TREATY WAS SECURED

When Intergovernmental Conference (IGC) President, Rena Lee, announced 'the ship has reached the shore', the negotiation room burst into applause.[4] After years of deliberations, the significance of reaching agreement on a Global Ocean Treaty was not lost on those there.

Over years, many governments, organisations and individuals worked tirelessly to build the global political will to complete the Treaty. Collaboration was key to success, with the High Seas Alliance (HSA) playing a vital role in galvanising and coordinating the efforts of the NGOs.[5] The emergence of the Blue Leaders, the Global Ocean Alliance and the High Ambition Coalition (HAC) – which now comprises 52 states – during formal negotiations was also key in maintaining ambition and achieving consensus.[6]

It is crucial to maintain and accelerate this political momentum throughout implementation of the Treaty.

A Little History

Global political movement towards improving the governance regime to protect marine life of the High Seas traces back to the early 2000s. Worsening ocean health and growing recognition of marine protected areas (MPAs) as a key solution to restoring resilience drove various bodies to act. These processes and targets were pivotal in increasing ambition, and have driven the development of the Global Ocean Treaty and other initiatives to increase MPA coverage in our oceans.

The Convention on Biological Diversity (CBD) has been a driver of protection for the High Seas. Until now, the CBD has been the primary global instrument providing direction to states to establish MPAs in their Exclusive Economic Zones (EEZ), and has held states responsible for the regulation of harmful activities beyond the limits of national jurisdiction, (providing they are under the control of a Contracting Party).The CBD acknowledges the need for protective measures in areas beyond national jurisdiction (ABNJs).

However, the power of the CBD is limited. Human activities are managed through other conventions and agreements, such as Regional Fisheries Management Organisations (RFMOs) or the International Maritime Organization (IMO). The CBD does not explicitly oblige states to take collective measures to protect the High Seas, nor does it provide a mechanism for establishing High Seas MPAs. This significant governance gap is now addressed by the Global Ocean Treaty.

The Treaty was formally adopted at the UN headquarters in New York on the 19th June 2023.[7] Among those welcoming it, negotiators from the African Group, led by ambassador Michael Imran Kanu of Sierra Leone, and Singapore's Foreign Minister Vivian Balakrishnan described it as a 'collective game changer'.[8, 9] Virginijus Sinkevičius, the European commissioner for the environment, ocean and fisheries, is one of many who described the agreement as a 'historic moment for the ocean.'[10]

Find more information on key steps towards international governance on marine biodiversity for the High Seas up to 2019 in Greenpeace *International report 30×30: A Blueprint for Ocean Protection*[11]

1

THE TREATY'S SIGNIFICANCE AND PROVISIONS

Greenpeace USA activists project ocean protection messages onto the Chrysler Building to send a clear message to delegates at the United Nations in New York during the second week of the resumed IGC5 negotiations.

The agreement of the Global Ocean Treaty is a significant step forwards in the protection of our ocean. It fills large gaps in the governance framework and provides a platform for coherent and informed collective action across regions and sectors – and crucially, is legally binding.

The Global Ocean Treaty sets up a new framework to establish High Seas MPAs; something that was previously missing for most parts of the High Seas.**

The Treaty addresses the package of issues agreed in 2011, namely:

- → Marine genetic resources (MGRs) including access and benefit sharing
- → Area based management tools (ABMTs) including MPAs
- → Environmental impact assessments (EIAs)
- → Capacity building and the transfer of marine technology (CBTMT)

The preamble of the Global Ocean Treaty text recognises the need to address biodiversity loss and ecosystem degradation in the ocean 'in a coherent and cooperative manner'. It also identifies several drivers of marine biodiversity loss, among them: impacts from climate change, ocean acidification, pollution and 'unsustainable' use.[12] This framing is important because it helps underscore the strong link between climate change and biodiversity loss, and the role of the Treaty in better integrating biodiversity protection with climate action.

The first part of the Global Ocean Treaty sets out the purpose, principles and definitions that apply to all the following sections. Importantly, Parties are required to cooperate to achieve the Treaty's objectives, including 'with and among relevant legal instruments and frameworks and relevant global, regional, subregional and sectoral bodies'.[13] Article 7 references both the precautionary and polluter pays principles.

The preamble 'recalls' the UN Declaration on the Rights of Indigenous Peoples. It affirms that nothing in the agreement will diminish or extinguish the existing rights of Indigenous Peoples or, 'as appropriate', local communities. The liveli hoods and cultures of many Indigenous Peoples and coastal communities are integrally linked to the waters that lie beyond national jurisdiction, both ecologically and culturally. For example, the Pacific Islanders' Polynesian ancestors navigated their way between the scattered islands, travelling thousands of kilometres across the open ocean, using cues from the natural environment.[14]

To implement the Treaty, a number of institutions will be established, these include:

- → a Conference of the Parties (the 'COP')
- → a Scientific and Technical Body
  a Secretariat
- → an Implementation and Compliance Committee, and
- → a Clearing-House Mechanism.

The Clearing-House Mechanism serves as a centralised platform enabling Parties to access, provide and disseminate information regarding their activities.

Once set up, these bodies will provide the channels through which the Treaty can interact and work with existing authorities such as the regional fisheries management organisations (RFMOs) that regulate fishing, the International Maritime Organisation (IMO) that regulates shipping and the International Seabed Authority (ISA) that regulates deep sea mining in waters beyond national jurisdiction.

Voting procedures can be employed in the Treaty's decision-making process if consensus cannot be reached. The provisions for a general ⅔ vote (to determine lack of consensus) and a ¾ majority (for decisions on establishing MPAs and issues related to MGR monetary benefit sharing) is highly significant, and critical for progress towards the 30x30 goal. Voting will prevent small minorities from blocking protection measures, which happens within some bodies that are separate from the Treaty, such as RFMOs and the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) around the establishment of MPAs. The BBNJ COP will not be beholden to blockers.

The Treaty provisions that enable the COP to 'take decisions to adopt measures' on an 'emergency basis, if necessary' will allow for swift action to address both natural phenomena and human-caused disasters. Regrettably, the threshold for emergency measures excludes pollution or other situations like a pipe leak, geoengineering or other damaging projects that do not qualify as pure emergencies.

**Through the provisions of CCAMLR and the Antarctic Treaty there is a clear mechanism for establishing MPAs in the Southern Ocean, but consensus based decision making within CCAMLR means that just one state can block the establishment of an MPA . https://www.ccamlr.org/en/science/marine-protected-areas-mpas

MARINE GENETIC RESOURCES (MGRS)

The genetic information held within marine algae, animals and microbes living in the High Seas enables them to produce a wide range of biochemicals, many of which may be useful to humankind. MGRs, including their digital version (digital sequence information – DSI), and derivatives obtained from species found in the High Seas may be useful to the development of pharmaceutical compounds, cosmetics, food supplements, research tools and new industrial processes.[15]

To make the equitable sharing of monetary and non-monetary benefits possible, the Treaty (Part II) imposes robust notification requirements prior to the collection, use, and commercialisation of MGRs. Non-monetary benefits include things like access to samples and increased scientific cooperation. For monetary benefits, a financial mechanism has been established to manage potential future funding flows.

Biologist Dr. Susanne Lockhart conducting scientific research on Antarctic organisms. Greenpeace documented the Antarctic's unique wildlife to strengthen the proposal to create an Antarctic Ocean Sanctuary.

AREA BASED MANAGEMENT TOOLS (ABMTS) INCLUDING MPAS

The Treaty (Part III) empowers the COP to establish ocean sanctuaries and other kinds of MPA in the High Seas, with associated management measures with the goal of creating a global network. The lack of a mechanism to do this was the major driver in starting the long process toward agreeing the Treaty.

STEP 1

SUBMITTING A MPA PROPOSAL

A state or group of states to submit a proposal with a clear conservation objective. Proposals must include information that clearly identifies the location and extent of the area to be protected, the threats to its marine biodiversity and a draft management plan with proposed management measures.

STEP 2

CONSULTATION OF THE PROPOSAL

Stakeholders get an opportunity to review and comment. The proponent(s) will then consider the feedback received and revise the proposal as appropriate.

STEP 3

REVIEW BY THE SCIENTIFIC AND TECHNICAL BODY

The SCT will review the proposal before providing a recommendation to the COP, which is the decision-making body.

STEP 4

COP'S DECISION

Hopefully the COP agrees to establish the ocean sanctuary or MPA by consensus but if not, the proposal can be taken to a vote. A ¾ majority is needed to designate the area as an MPA.

STEP 5

IMPLEMENTATION, MONITORING AND REVIEW OF MPAS ESTABLISHED

Objecting parties may opt out under certain conditions but have an obligation to:

- adopt alternative measures having an equivalent effect, and
- shall not adopt measures nor take actions that would undermine the effectiveness of the decision to which it has objected.

The text also provides guidelines for implementation, monitoring, and review of MPAs established, all of which will help ensure effective protection of the area and its associated biodiversity.

ENVIRONMENTAL IMPACT ASSESSMENTS (EIAS)

While the provisions in Part IV of the Treaty for EIAs (defined in the Treaty simply as 'a process to identify and evaluate the potential impacts of an activity to inform decision-making') might not be quite as far-reaching as hoped, they represent a significant step towards regulating human activities on the High Seas.

Under the Treaty states must ensure that EIAs are performed for any planned activities within their 'jurisdiction or control.' This covers both activities taking place in the High Seas by vessels registered in the state and activities taking place or proposed within a state's national jurisdiction that 'may cause substantial pollution of' or 'significant and harmful changes to the marine environment' in the High Seas or the deep seabed.

The Treaty establishes a decision-making standard for activities affecting the biodiversity of the High Seas. It covers both activities managed within existing regulatory bodies and new activities (for example, large-scale geoengineering proposals, High Seas aquaculture and laying submarine cables), with a requirement that they be managed to avoid or mitigate significant adverse environmental effects.

There is an exemption for fishing and other activities that take place in areas beyond national jurisdiction that are regulated by existing bodies that may have their own EIA regulations. However, EIA reports conducted under these other bodies will be published through the information exchange portal of the Clearing-House Mechanism, increasing transparency. States party to the Treaty are obligated to promote the use of EIAs, and adopt and implement the standards and guidelines developed by the Scientific and Technical Body in other bodies. Over time it is hoped this will raise standards and there will be greater harmonisation in the EIA provisions across the various ocean management organisations.

As with other elements of the Treaty, developing countries will be offered support so they can engage fully with the various aspects of the EIA process.

CAPACITY BUILDING AND THE TRANSFER OF MARINE TECHNOLOGY (CBTMT)

Among the most progressive aspects of the Treaty are the provisions in Part V for CBTMT. This will help ensure developing countries have the resources, expertise and skills to fully engage and benefit from the Treaty. These provisions cut across the MGR, ABMT and EIA components of the 'package' and contribute greatly to the equitable implementation of the Treaty.[16]

CBTMT covers:

- → sharing of knowledge and research
- → opportunities for collaboration and access to scientific institutions
- → development of relevant infrastructure
- → provision of tools for effective monitoring, control and surveillance
  management resource capabilities, and
- → development of 'technical, scientific and research and development programmes

CBTMT encourages cooperation, helps develop both scientific and technical capacity and promotes access to technology on fair terms. A dedicated committee will be established to oversee capacity-building and the transfer of marine technologies and ensure effective delivery of CBTMT provisions.

Mauve Stinger Jellyfish in the Azores

FINANCE

Resourcing needs to be adequate for the Treaty to be properly implemented and the CBTMT requirements to be met. An early task of the COP is to develop an initial resource mobilisation goal through 2030. The various institutions of the Treaty will be funded through assessed contributions of the Parties.
The financial mechanism to meet the Treaty's objectives consists of a voluntary trust fund, a special fund and the Global Environment Facility (GEF) trust fund.

The voluntary trust fund set up by the COP will enable representatives from Parties that would otherwise find it difficult to participate to do so.

The special fund is to ensure that any monetary benefits, including commercialisation, derived from MGR and associated DSI 'shall be shared fairly and equitably'. The fund will be financed through annual contributions of States and financial gains made from the exploitation of MGR. Private entities may also make voluntary contributions to the fund.

ENTRY INTO FORCE

The agreement of the Global Ocean Treaty, while highly significant and a triumph of diplomacy and multilateralism in an increasingly fractured world, is only a first step to securing protection for the High Seas.

The Treaty will open for signatures on September 20 2023, during the annual meeting of world leaders at the UNGA. This is when states can indicate their intent to ratify.[17]*** However, the Treaty will only enter into force 120 days after 60 countries have ratified.

The UN Secretary-General is required to convene the first meeting of the COP to the Agreement no later than one year after its entry into force.

Tuna caught by Spanish longlinerin the South West Indian Ocean

**Through the provisions of CCAMLR and the Antarctic Treaty there is a clear mechanism for establishing MPAs in the Southern Ocean, but consensus based decision making within CCAMLR means that just one state can block the establishment of an MPA . https://www.ccamlr.org/en/science/marine-protected-areas-mpas

2

EVER-ESCALATING THREATS TO THE HIGH SEAS

© Tommy Trenchard / Greenpeace

A shark is hauled onboard a Spanish longliner in the south east Atlantic.

The knowledge that High Seas marine life was increasingly threatened provided the impetus for Greenpeace and others to begin the long campaign for the Global Ocean Treaty. On-going threats –such as overfishing, habitat destruction, ocean heating, ocean acidification, deoxygenation, ice loss, sea level rise, pollution and shipping – are being added to by emerging threats such as open-ocean farming and the prospect of deep sea mining.[18]

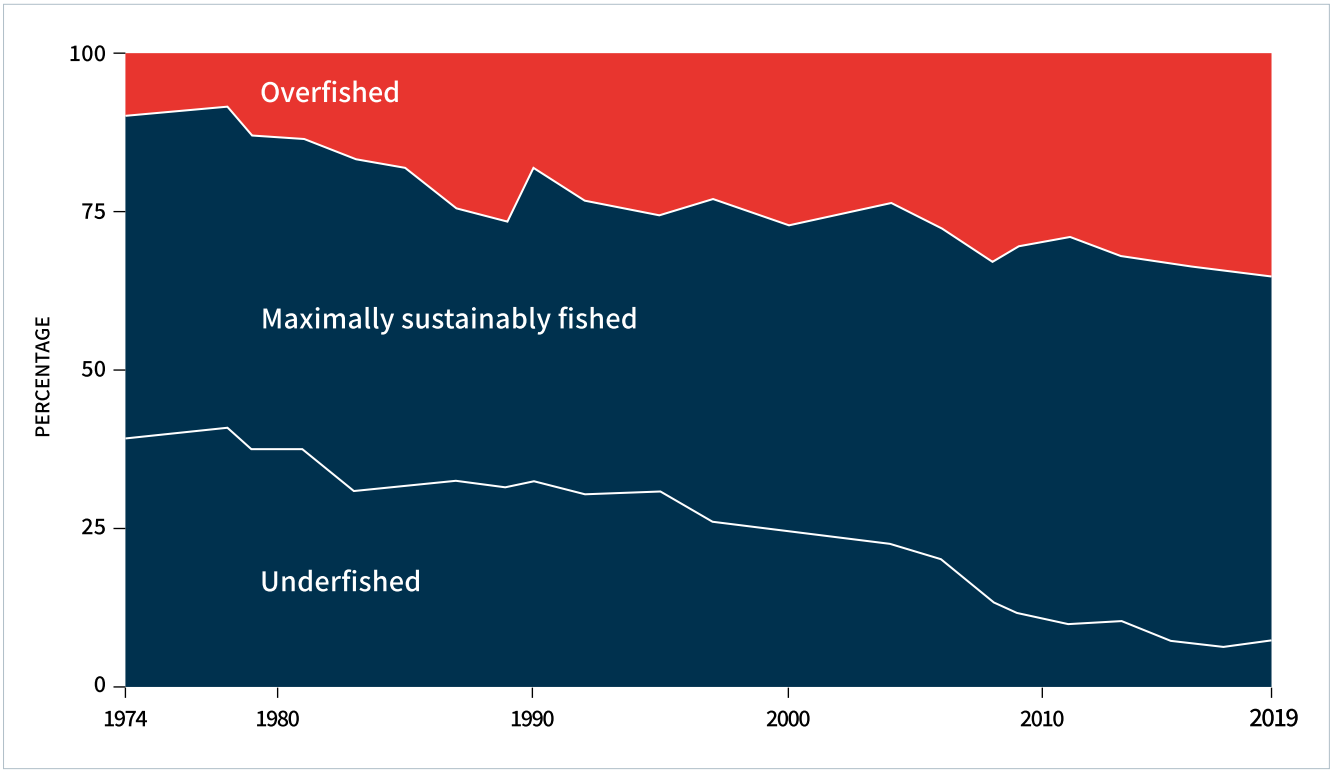
Impacts are cumulative and different threats, some of which are operating at the Earth/ocean system scale, can interact with each other, worsening consequences.[19] This elevates concern and underscores the need for rapid implementation of ocean protection at a scale in line with the threats.

A 2019 study found that most of the ocean (59%) is experiencing significantly increasing cumulative human impact, especially from climate change but also from fishing, land-based pollution and shipping.[20] Critically, if current trajectories of change persist, the global cumulative impact of humans on the ocean may rapidly push many ocean regions past critical tipping points.

Find detailed background on how threats impact the High Seas in 2019's Greenpeace International report *A Blueprint for Ocean Protection.* This chapter sets out some further information on how these threats are changing and, in some cases, increasing.

FISHERIES

The status of the world's fish populations continues to decline. The percentage of fish populations either overfished or fished at their maximum sustainable yield are increasing over time.[21] The percentage of populations classified as overfished has been increasing since the late 1970s, from 10% in 1974 to 35.4% in 2019, as shown in the FAO graph.



Source: FAO (2022).

This decline demands that strong measures are implemented to rebuild fish populations. As the FAO notes, this is 'more critical for some highly migratory, straddling and other fisheries resources that are fished solely or partially in the High Seas'.[22] The UN's Transboundary Waters Assessment Programme has characterised the human impact of fishing on the High Seas as 'relentless, and inequitably distributed'.[23]

A review of the impacts of fisheries on open-ocean ecosystems showed how High Seas fishing can reduce abundance and affect the functional role of the species within the biological community – thus reducing the biodiversity and resilience of food webs.[24]

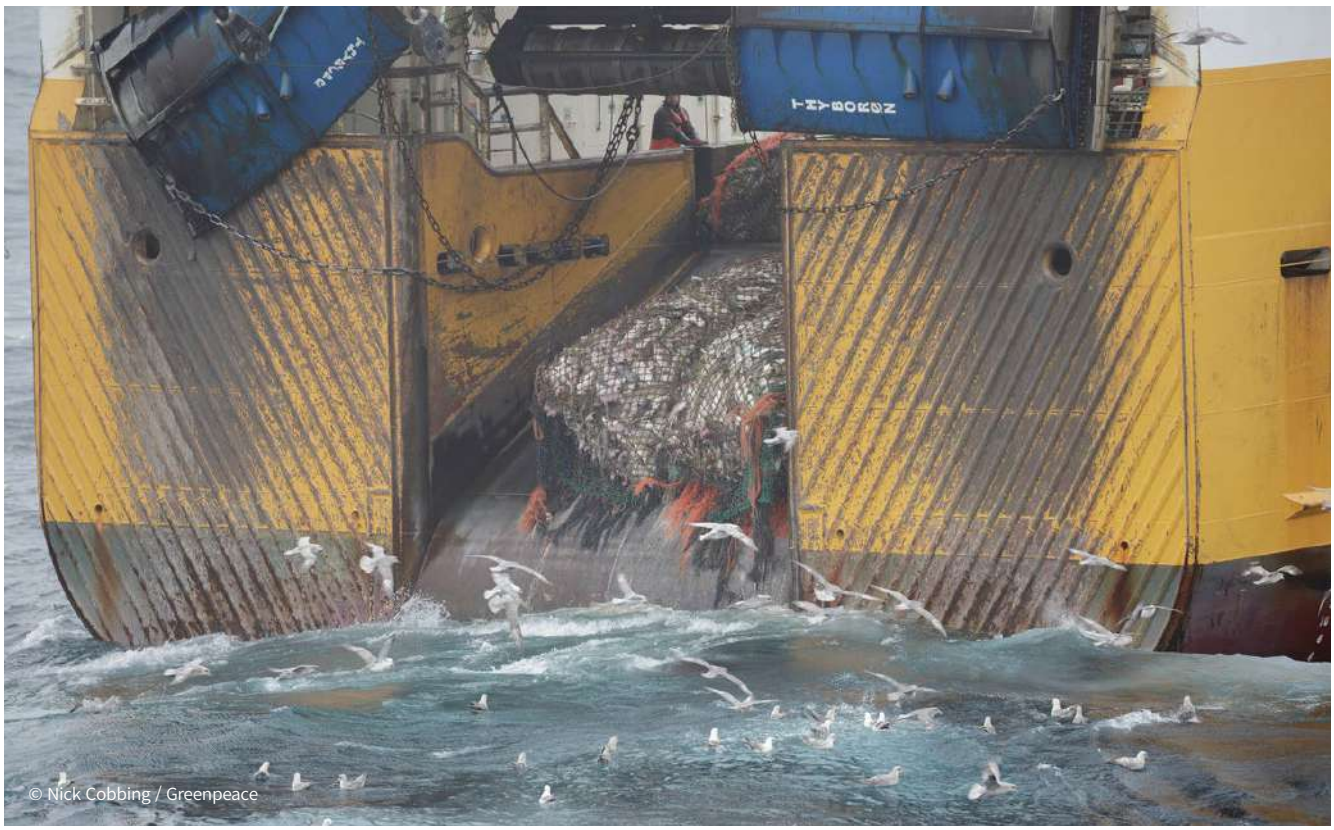
The unfair nature of High Seas fishing is apparent from an analysis of which corporations are involved.[25] This revealed the top 100 corporate actors account for 36% of all High Seas fishing effort. These industrial vessels are mainly supplying fish for high end markets in the US and Europe.[26]

Distant water fishing (DWF) operations in the High Seas are also rife with illegal, unreported and unregulated (IUU) fishing and forced labour practices. In recent years, Greenpeace conducted detailed research and investigations that exposed the iceberg of environmental and social harm inflicted by DWF operations globally.[27, 28, 29] This work reveals a system that is not fit for purpose. Until an effective, global system of monitoring, control and surveillance (MCS) is in place, these illegal and unethical practices will persist to the harm of marine biodiversity and fishing workers.

NEW ANALYSIS OF HIGH SEAS FISHING ACTIVITY

In light of this serious decline in global fisheries, Greenpeace International has undertaken new analysis for this report.

This new analysis of global fishing shows vast and consistent industrial fishing pressure on the high seas, largely conducted by destructive fishing methods such as longlining, bottom trawling and purse seining. With fish populations declining drastically, key species on the verge of collapse and ecosystems and habitats being lost at unprecedented rates (including inside areas earmarked for protection) this new analysis makes clear the urgency of taking action on protection, to create safe havens and give oceans a chance to recover.



Trawler operating in the Barents sea

DATA ANALYSIS METHODOLOGY

Greenpeace International downloaded the EBSA (Ecologically or Biologically Significant Marine Areas) shapefile for each of the priority sites from: https://www.cbd.int/ebsa/

Note: The Sargasso Sea shapefile on CBD also included the Bermuda EEZ. We therefore edited this shapefile to exclude the Bermuda EEZ using the EEZ shapefiles from here: https://www.marineregions.org/gazetteer.php?p=details&id=8402

These shapefiles were uploaded to Global Fishing Watch (GFW) and used to download the 'apparent fishing data' for each year from 2018 - 2022 for the priority areas.

Description of 'apparent fishing activity' from GFW: 'Global Fishing Watch uses data about a vessel's identity, type, location, speed, direction and more that is broadcast using the Automatic Identification System (AIS) and collected via satellites and terrestrial receivers. AIS was developed for safety/collision-avoidance. Global Fishing Watch analyzes AIS data collected from vessels that our research has identified as known or possible commercial fishing vessels and applies a fishing presence algorithm to determine "apparent fishing activity" based on changes in vessel speed and direction. The algorithm classifies each AIS broadcast data point for these vessels as either apparently fishing or not fishing and shows the former on the Global Fishing Watch fishing activity heat map. AIS data as broadcast may vary in completeness, accuracy and quality. Also, data collection by satellite or terrestrial receivers may introduce errors through missing or inaccurate data. Global Fishing Watch's fishing presence algorithm is a best effort mathematically to identify "apparent fishing activity." As a result, it is possible that some fishing activity is not identified as such by Global Fishing Watch; conversely, Global Fishing Watch may show apparent fishing activity where fishing is not actually taking place. For these reasons, Global Fishing Watch qualifies designations of vessel fishing activity, including synonyms of the term "fishing activity," such as "fishing" or "fishing effort," as "apparent," rather than certain. Any/all Global Fishing Watch information about "apparent fishing activity" should be considered an estimate and must be relied upon solely at your own risk.

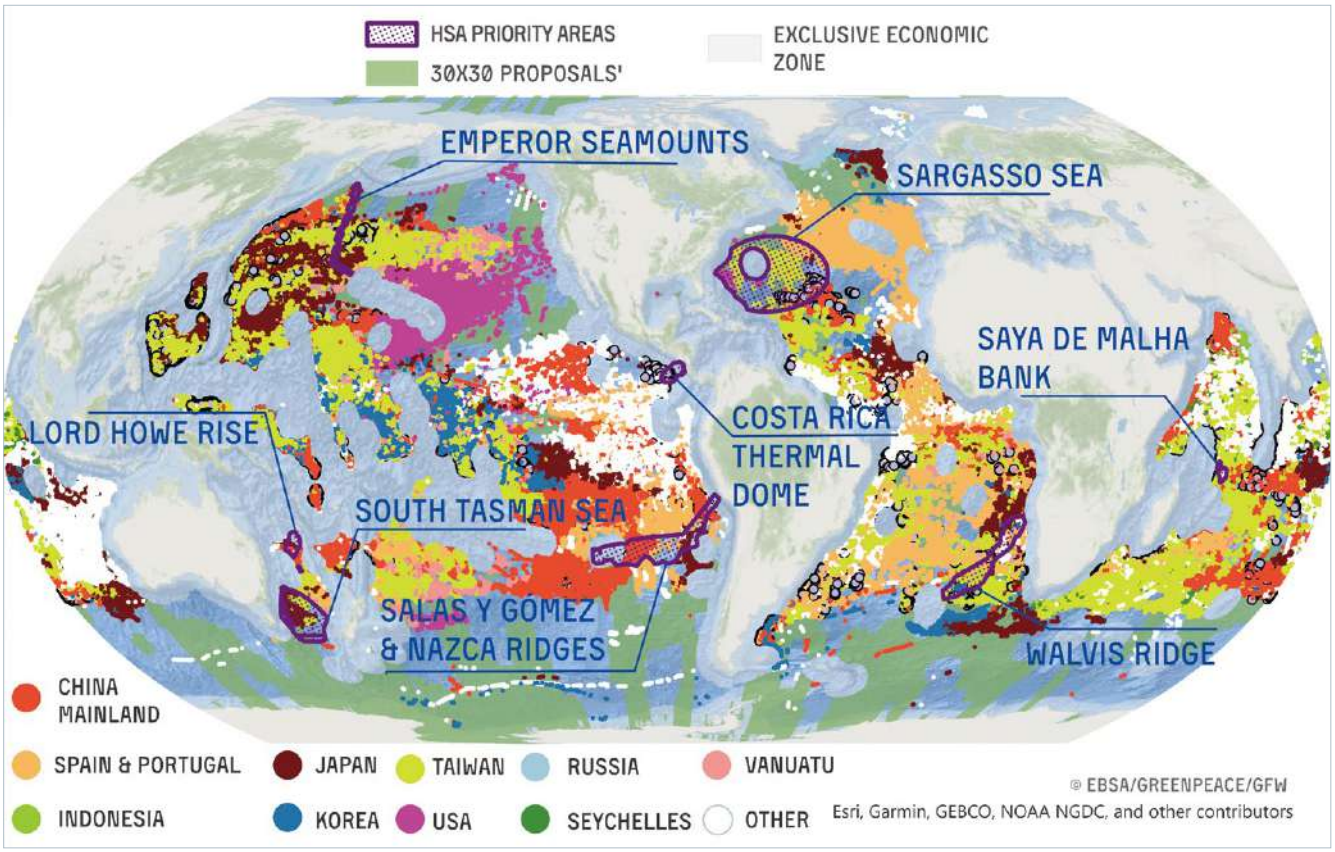
Global Fishing Watch is taking steps to make sure fishing activity designations are as accurate as possible. Global Fishing Watch fishing presence algorithms are developed and tested using actual fishing event data collected by observers, combined with expert analysis of vessel movement data resulting in the manual classification of thousands of known fishing events. Global Fishing Watch also collaborates extensively with academic researchers through our research program to share fishing activity classification data and automated classification techniques.'

Licence

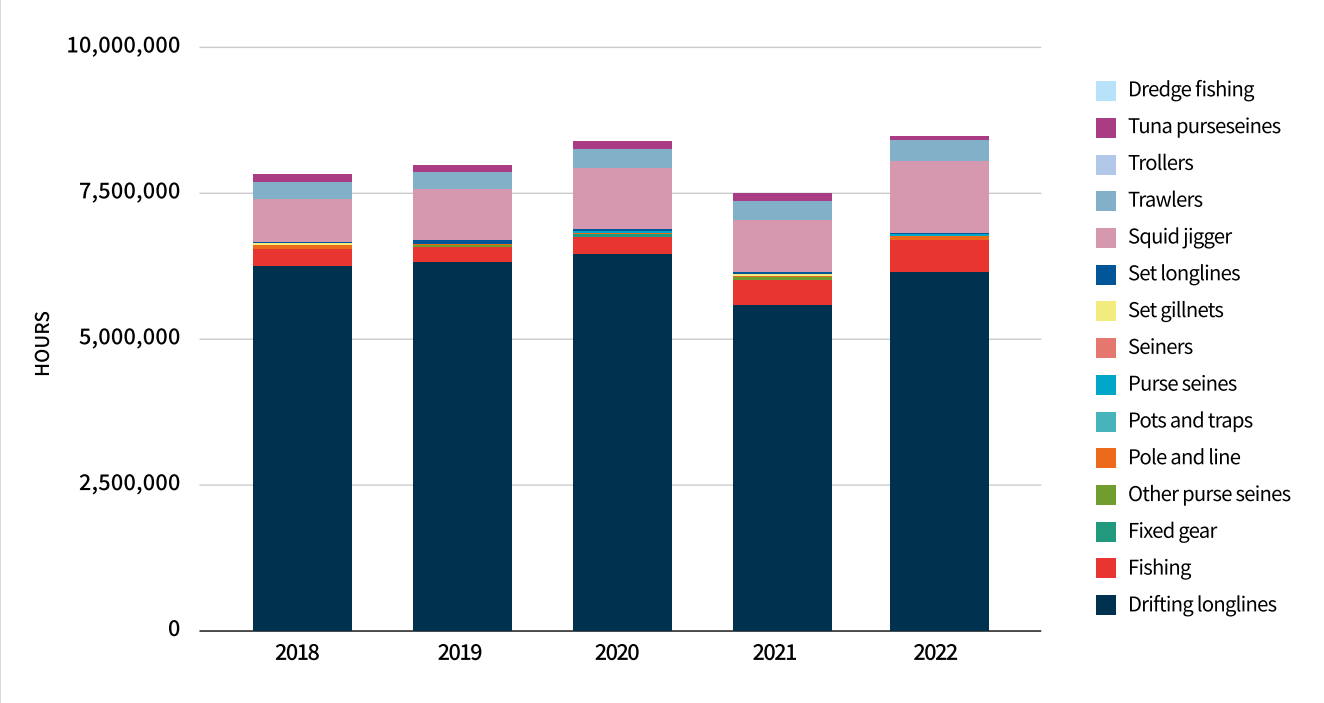
Suggested citation for data:

Global Fishing Watch. 2022, updated daily. Vessel presence and apparent fishing effort v20201001.

Global Fishing Watch, a provider of open data for use in this article, is an international nonprofit organisation dedicated to advancing ocean governance through increased transparency of human activity at sea. The views and opinions expressed in this article are those of the authors, which are not connected with or sponsored, endorsed or granted official status by Global Fishing Watch. By creating and publicly sharing map visualizations, data and analysis tools, Global Fishing Watch aims to enable scientific research and transform the way our ocean is managed. Global Fishing Watch's public data was used in the production of this publication.



Map of fishing fleets (by flag) in the High Seas



Total apparent fishing hours by fishing method
'Fishing' is unclassified fishing types, meaning Global Fishing Watch has been unable to determine the type of fishing vessel.

Apparent fishing activity on the high seas increased by over 500,000 hours between 2018 and 2022. Some of this rise in apparent activity, though not all, may be explained by more vessels adopting AIS satellite.[30] There has been a consistent upward trend since 2018, apart from a fall in 2021.

The Covid-19 pandemic led to a global downturn on fishing activity, of at least 5%, in 2020.[31] This overall decline is not reflected in the 2020 High Seas apparent fishing hours, although it could have had a knock-on effect and caused the fall in activity in 2021.

DRIFTING LONGLINES

Drifting longlines are by far the most prevalent gear type employed in the High Seas, making up over ¾ of the total fishing activity. Drifting longlines consist of a main-line or "mother-line" kept near the surface (surface longline) with regularly spaced floats and relatively long snoods (branches) with baited hooks, which target large pelagic fish like tunas, swordfish or sharks. The gear is suspended about 60-100 metres below the surface. Surface longlines can be very long, from 20 kilometres to more than 100 kilometres.In 2022, a Greenpeace Spain and Greenpeace UK investigation revealed that in a 24-hour period, an estimated 1,280 kilometres of longlines were in the North Atlantic – enough to stretch from Paris to Madrid. We estimate that a longline of this length would have anywhere between 15,500 and 28,000 hooks.[32]

An inherently unselective gear, longlines are responsible for high levels of bycatch (species caught unintentionally) of marine mammals, turtles, seabirds and some species of sharks.[33] The scale of the problem is shown by the number of seabirds that are thought to be killed annually by longline fisheries – estimated to be at least 160,000 seabirds and potentially in excess of 320,000.[34] Significantly, bycatch in longlines is the largest global driver of declines in albatross populations.[35]

Similarly, a combination of targeted fishing and incidental bycatch has led many shark populations to the verge of collapse. So much so, a 2021 study showed that since 1970, the global abundance of oceanic sharks and rays has declined by 71% owing to an 18-fold increase in relative fishing pressure.[36] 29 years ago, it was already assessed for the FAO that longline fisheries were the most significant source of shark kills in the high seas, mainly because of the magnitude of their effort. These fisheries were already contributing about 80% of the estimated total elasmobranch (a class of fish that includes sharks, skates and rays) bycatch in weight and about 70% in numbers of fish[37]. Although there is great uncertainty around the estimates for this type of fisheries due to limited monitoring.

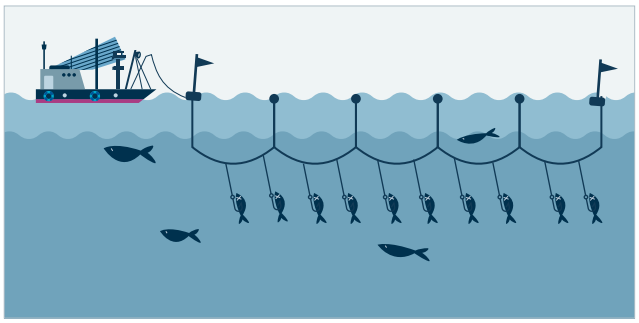


Illustration of drifting longlines

SQUID JIGGERS

Squid jiggers are the next most prevalent gear type after drifting longlines. The global cephalopod fishery, which includes squid, octopus and cuttlefish, has grown over 10-fold since 1950 to a peak of almost 5 million tonnes annually in 2014. [38] In particular, squid fisheries have grown worldwide and Greenpeace International has exposed new emerging fishing techniques that are likely to be less selective than squid jigging and increase levels of bycatch.[39] This has occurred as catches of overexploited finfish have declined and suggests a serious problem of overfishing and flawed fisheries management. Indeed, most High Seas squid fisheries are concentrated in areas where there is no multilateral mechanism to oversee their operations and therefore fall within the FAO's definition of 'unregulated fishing'.[40]

BOTTOM TRAWLING

The statistics from Global Fishing Watch show that high seas trawling activity has stayed relatively constant over the past five years, accounting for about 4% of the total effort.

Deep sea bottom trawling, mostly concentrated on seamounts and continental shelves, is inherently destructive. Not only for targeting deep sea species – which are vulnerable to overfishing due to their slow growth, longevity and low reproductive rates – but for the damage they do to deep sea habitats.[41] A single pass across the seabed from a vessel equipped with large nets and armed with steel plates and heavy rollers can significantly damage the seafloor. It disturbs and overturns sediment, scars rock surfaces, and disturbs and destroys bottom-dwelling (benthic) organisms. Ancient coral gardens may be reduced to rubble and sponge fields obliterated.

As well as being highly destructive, a 2018 study found that bottom trawling is generally unprofitable without subsidies.[42]

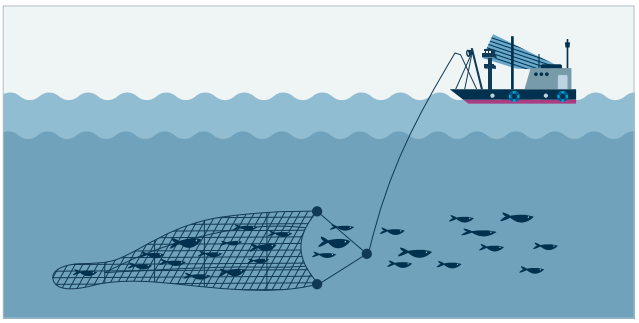


Illustration of bottom trawling

PURSE SEINE NETS

The last of the top four fishing gears used on the High Seas are purse seine nets. Purse seiners employ a fishing net that hangs vertically in the water, with its bottom edge held down by weights and its top edge buoyed by floats to enclose large schools of tuna in the surface layer of the open ocean.

One of the major problems associated with the industrial purse seining fleet is the use of drifting fish aggregating devices (FADs). A FAD is a floating object (anything from a log to a human-made structure) with a buoy and often an echo sounder attached. While effective at luring catch, FAD numbers mean they have a large environmental impact – the total number of such devices potentially exceeds 100,000 annually.[43] They attract huge numbers of juvenile tuna from all three tropical species (skipjack, yellowfin and bigeye tuna) and cause higher levels of bycatch than when fishing for free schools of tuna.[44]

FADs also contribute to ghost fishing, damage to coral reefs and an increase in fishing capacity in fisheries already operating at overcapacity.[45] Some potential impacts are still poorly understood or remain in discussion, such as the possibility that, by drifting with so many FADs, tuna may occupy suboptimal areas and/or reduce school size.[46]

PROPOSED 30 X 30 AREA

As seen in the wider high seas, apparent industrial fishing pressure is vast. It has grown in the last five years in the areas that comprise our 2019 protected area network proposal, detailed in 30x30: A Blueprint for Ocean Protection. This report used groundbreaking modelling, led by Professor Callum Roberts, to map out how to protect 30% of the world's oceans by 2030 – the '30x30' target agreed by the CBD in December 2022 .

Properly protecting 30% of the high seas will provide an urgently needed boost to marine health, helping fish populations recover and eventually grow In the long term, this will help not hinder global fisheries, as well as help to secure the long-term food security of billions of people and protect vital ocean habitats, species and ecosystems from destructive industrial fishing.

Since our 2019 modelling, apparent fishing activity in the 30x30 area proposed is approximately 30% of the fishing activity in the High Seas. Trawling activity has stayed relatively consistent throughout the five years, similar to the wider High Seas area.

Fully or highly protected MPAs, which can be established under the Treaty, provide a safe haven for fish populations and help them to recover, benefiting fisheries.[47] Rebounding fish populations from fully or highly protected MPAs may 'spillover' into adjacent waters. therefore enhancing surrounding fisheries.[48, 49]

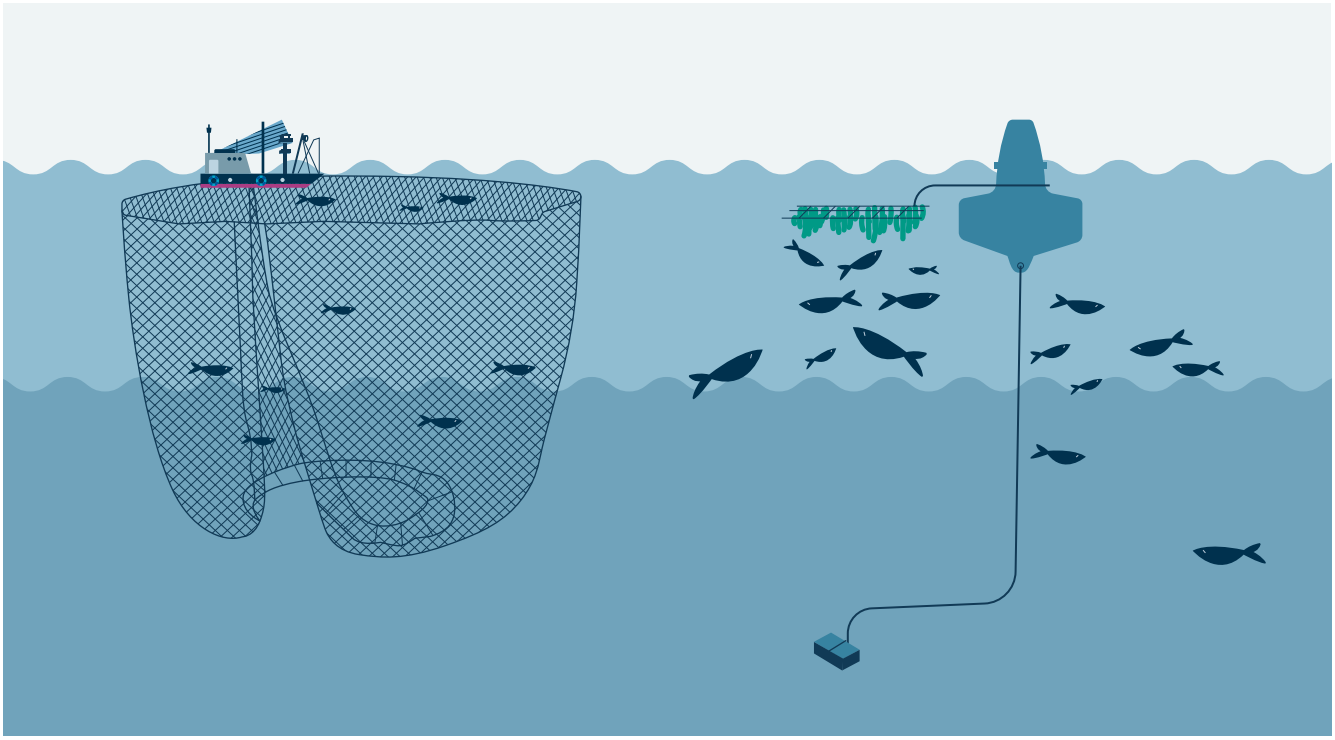
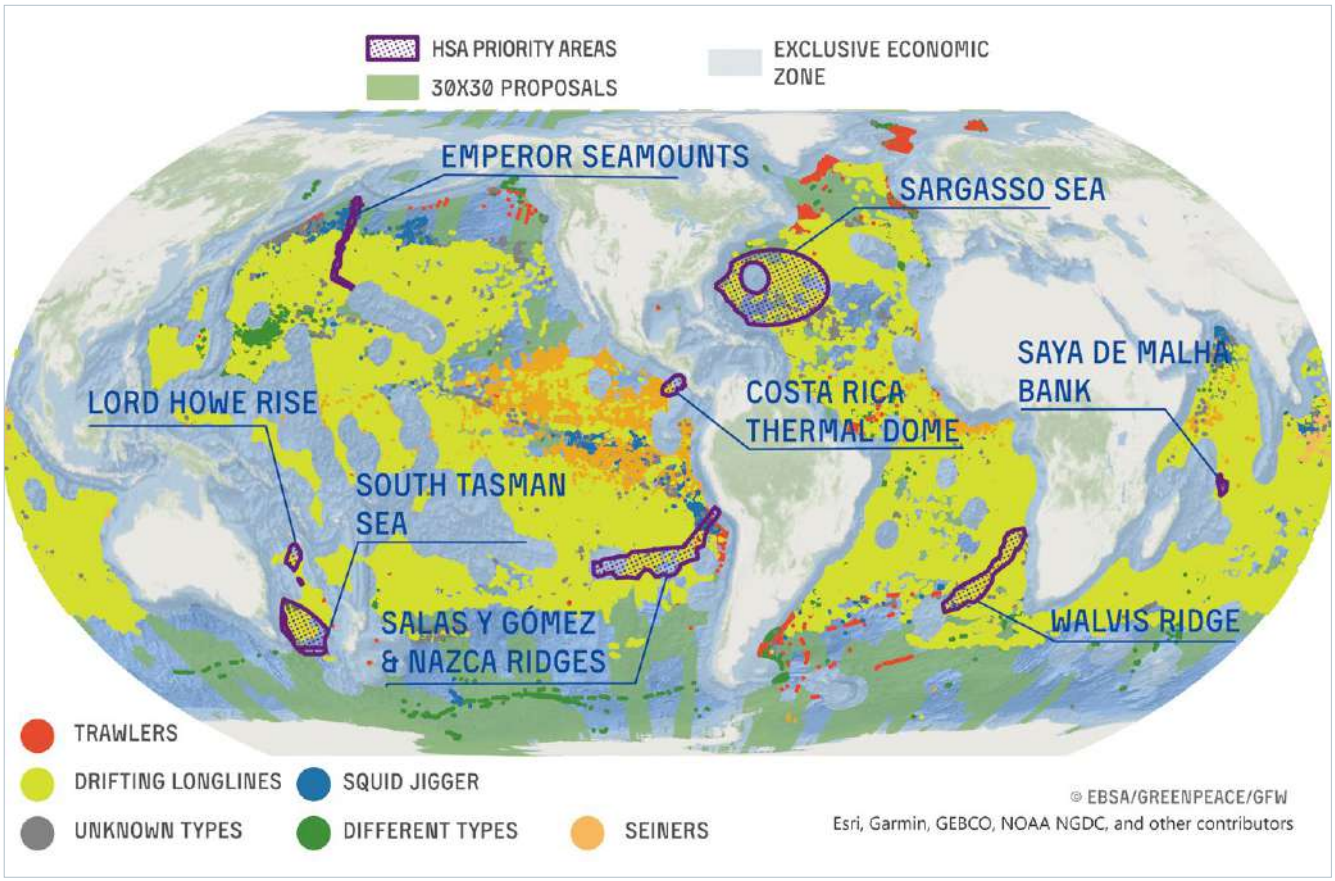
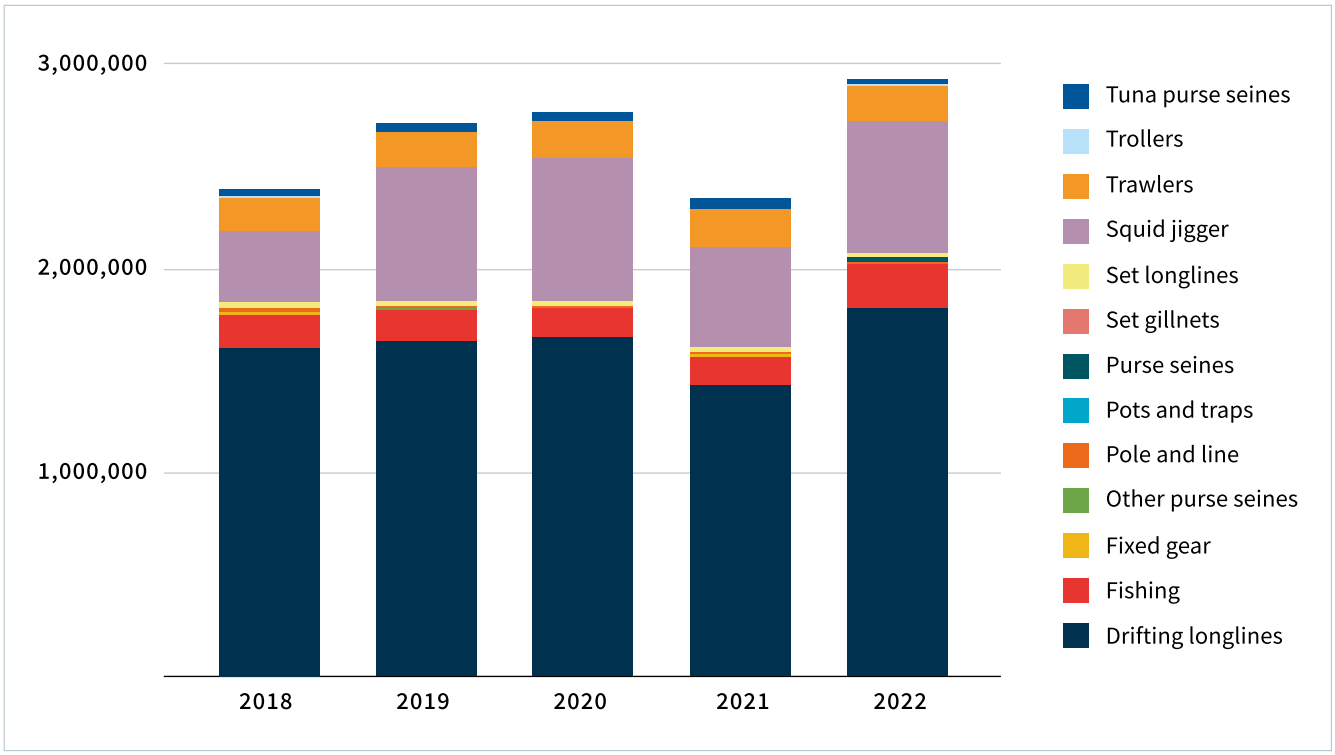


Illustration of purse seine nets (left) and fishing aggregating device (FAD - right)



Types of fishing activities in the high seas, including priority areas



Apparent fishing activity in 30x30 area

OCEAN HEATING, OCEAN ACIDIFICATION AND DEOXYGENATION

HEATING

In April 2023, NOAA scientists presented the latest data on the world's ocean surface temperature. This showed the average (excluding the polar oceans) had reached a record high of 21.1oC at the beginning of the month, beating the previous record of 21oC recorded in 2016.[50] The escalating trajectory of sea surface temperatures (SST) appears to be 'headed off the charts' according to Professor Matthew England, a climate scientist at the University of New South Wales. It is one symptom of the accelerating impacts of climate change on our ocean.[51]

The slower warming of the deep ocean might suggest that biodiversity there is less exposed to climate change than that near the surface, but this is not the case. Scientists studying the speed and direction that species have had to move to remain within their climatic niches (their so-called 'climate velocity') found that, from 1955 to 2005, deep sea species have had to move much faster than surface species.[52] The research indicates that deep-ocean biodiversity faces an unavoidable acceleration in climate velocities in the future, most prominently in the mesopelagic (200 – 1,000 m). For this reason, we need to support deep sea communities to adapt to climate change. To do this requires stringent measures are put in place to protect them from fishing and other human activities, and also the establishment of open-ocean protected areas designed to accommodate species moving at different speeds at different depths.[53]

As ocean heating moves into uncharted territory, the ocean processes that regulate the Earth's climate are increasingly disrupted.[54] In June 2023, polar scientists called for an urgent intensification of national and international research and observation due to sea ice reducing at an unprecedented rate.[55]

Sea ice is central to the Earth system, regulating how much light our planet reflects. It also helps modulate deep ocean ventilation, heat storage and hosts important algal ecosystems. In the Arctic, a notable ice-free area opened near the North Pole in July 2022 and persisted for several weeks. While in the Antarctic, sea-ice extent reached another record low in February 2023, following previous record lows of February 2017 and 2022.[56]

New research suggests that climate-driven heating of seawater could lead to a slowdown of deep circulation patterns in the Atlantic and Southern oceans by as much as 42% by 2100.[57] This is very concerning because it will reduce ocean uptake of carbon dioxide from the atmosphere and will intensify and extend the hot climate conditions. The models used by the researchers show how vital nutrients that fuel marine ecosystems would increasingly become trapped in the deep ocean over time, leading to a global reduction in biological productivity.[58]

ACIDIFICATION

Ocean acidification, another consequence of human-caused carbon dioxide emissions, is now happening at a faster rate than at any point in the last 66 million years, and possibly in the last 300 million years.

Marine life will respond to ocean acidification in different ways. Those that rely on dissolved carbonate for building their shells or external skeletons are most at risk, as acidification may make it harder for them to build shells.

The Union of Concerned Scientists notes that projections show that by the end of this century, ocean surface waters could be more than twice as acidified as they were at the end of last century if we do not reduce our carbon emissions.[59]

Along with the scientific work, others have begun looking at improving the policy framework to address acidification – including looking at the role of protected areas.[60]

DEOXYGENATION

Deoxygenation, the third main marine impact of increased greenhouse gas emissions, is also getting worse.

According to projections by the Intergovernmental Panel on Climate Change (IPCC), under a 'business-as-usual' scenario where greenhouse gas emissions are not reduced, it is expected that the global ocean oxygen levels will fall on average by about 3% to 4% by this century's end.[61] Naturally-occurring low dissolved oxygen zones, located between around 100 - 1000 metres deep, are expanding. Oxygen loss is greatest in the Northeast Pacific, Southern Ocean and Indian Ocean.[62]

Marine life is negatively impacted by ocean deoxygenation in various ways. The quality and extent of preferred habitat can be reduced, and growth rates and maximum body sizes they reach may be suppressed, leading to lower reproductive output. A lack of oxygen can interfere with reproduction and organisms may become more susceptible to disease. As a consequence, the diversity, composition, abundance and distribution of marine microbes and animals may change.

REVERSING HUMAN-CAUSED CLIMATE IMPACTS IN THE OCEANS

Our continued reliance on burning fossil fuels and the resulting CO2 has led to ocean heating, ocean acidification and deoxygenation. The impacts of these changes are rapid and large-scale. They are already disrupting ecosystem structure and functions across the globe for both biodiversity and humankind.

Drastically cutting emissions is the only mechanism open to us to reduce, and ultimately reverse, the accumulation of anthropogenic CO2 in the ocean and to mitigate the climate crisis. In the meantime, fully and highly protected areas can build ecological resilience and help marine life better cope with these threats.[63]

It is vital to establish a global network of MPAs under the Treaty, which covers a portfolio of ecosystems. This can safeguard natural stores of CO2 in the ocean ('blue carbon') and the processes that contribute to their accumulation.[64]

Great Barrier Reef Mass Coral Bleaching Event

POLLUTION

PLASTIC POLLUTION

Plastic pollution has become so widespread that it is even a problem on the High Seas.[65] Plastic waste makes up 80% of all marine debris. It is estimated that at least 14 million tons of plastic end up in the ocean every year.[66] Some of this will end up in the five great ocean garbage patches, where prevailing currents concentrate debris originating from both marine and land sources. While these five gyres have a particularly high density of plastic waste, the problem is ubiquitous and rapidly getting worse. Plastic is now found on the surface, throughout the water column and on the seafloor – even at the bottom of the Mariana Trench.

Plastic on the High Seas differs from the plastic pollution encountered closer to shore. Coastal plastic pollution often includes lots of plastic films, such as food wrappers and plastic bags. High Seas plastic pollution tends to be derived from lost or discarded fishing gear.[67] The state of High Seas plastic pollution is one more reason why governments must ensure the upcoming Global Plastics Treaty ends plastic pollution across the entire life-cycle of plastic and radically reduces plastic production and use.[68]

CHEMICAL POLLUTION

While overdue moves to curb plastic pollution gather momentum, the insidious threats to marine life posed by chemical pollution of the ocean have not received the attention they should. The 2022 publication of The Invisible Wave: Getting to zero chemical pollution by Back to Blue has begun to fix this problem, by providing an overview of the status of this significant global threat to ocean life.[69] Most chemical pollutants come from land and they may cause many different harms to marine life.[70]

As well as plastic wastes and their related chemicals (e.g. BPA, phthalates), ocean pollutants include: persistent organic pollutants (POPs), endocrine disrupting chemicals, heavy metal compounds, pesticides, pharmaceuticals, oil, personal care products, and other industrial and agricultural emissions. The impacts of some persistent pollutants, such as polychlorinated biphenyls (PCBs), DDT and tributyltin, have been understood for decades. But we have only recently become aware of many more pollutant dangers to marine life and how we should address them.[71]

PCBs have effects on reproduction and immune function and threaten the long-term viability of more than 50% of the world's killer whale populations.[72] Not only are populations close to industrialised regions at risk of collapse, but also those that feed at high trophic levels regardless of their location.

Perfluorinated chemicals (used in weatherproofing treatments, flame retardants and non-stick coatings) have become known as "forever chemicals" due to their near indestructibility and transmissibility through the environment.[73, 74] They are known to be toxic to both humans and wildlife. Some have been shown to interfere with the hormonal, reproductive and immune systems, as well as to promote the development of certain cancers.[75]

The toxicological effects of many thousands of these chemicals are simply not known and the impacts on marine life are not well understood. They are found throughout the ocean, and have been detected in the polar oceans and in seawater and plankton from the Northwestern Atlantic Margin.[76] They have been found in fish, loggerhead turtles, seabirds, dolphins, whales and polar bears.[77] Suspected health effects in these animals include immune suppression in polar bears.[78, 79]

Recent research into how pollutants may be exacerbating global heating highlights the interrelated nature of the threats facing the ocean. Researchers from Edinburgh University have found that the sea surface microlayer is being severely damaged by marine pollutants, including microplastics, black soot and toxic 'forever chemicals', which concentrate in this layer.[80] The sea surface microlayer, like skin, acts as a boundary between the ocean and atmosphere. It plays a key role in regulating the climate. A reduction in this layer could lead to increased evaporation, cloud formation and precipitation, as well as increased humidity and temperature, contributing to further catastrophic climate change.

The scale of the chemical pollution problem had Stockholm Resilience Centre researchers conclude that the planetary boundary for 'novel entities' (synthetic chemicals including plastics) has now been exceeded, raising the risks to the stability of the Earth system processes.[81]

Although MPA boundaries cannot exclude pollutants, the marine life inhabiting fully or highly protected MPAs set up under the Treaty will have fewer stressors to contend with and so may be better able to withstand impacts from pollution.[82] Tackling this problem has to be at source. It is only recently that there have been high level discussions about the need to develop a global regulatory framework and a strong Global Plastic Treaty. Governments must finalise these as soon as possible.[83]

Baby green sea turtle in a plastic cup in Sumatra.

DEEP SEA MINING

The possibility of deep sea mining starting in earnest was ratcheted up in 2021. Nauru, working with Canadian-registered The Metals Company, triggered the 'two-year rule', a loophole which gave the International Seabed Authority (ISA) a deadline of July 2023 to finalise a Mining Code, or else contractors could start submitting deep sea mining applications.[84,85]****

However, as of July 2023, negotiations on a Mining Code remain far from finished, with over 20 governments announcing their support for a moratorium, ban or precautionary pause on deep sea mining. The legal loophole remains open, meaning contractors can apply to mine the deep sea from 9 July 2023 onwards. The decision-making process that would be used to decide on any application submitted without a Mining Code in place is a significant and unresolved issue at the International Seabed Authority.

Meanwhile, evidence accumulates that the potential impacts of deep sea mining are likely to be 'extensive and irreversible, permanent and immitigable'.[86] For example, a recent study pulled together a checklist from all the records of benthic animals for the Clarion Clipperton Zone, an area of the Pacific rich in polymetallic nodules and targeted by the deep sea mining industry. This found the region was home to 5,578 species identified to date, of which an estimated 92% were new to science.[87]

One of the major impacts of deep sea mining emanates from the sediment plumes produced by the mining operations, both at the seafloor and midwater when waste products would be returned from mining ships to the ocean.

A recent study indicates that deep sea mining will not only impact benthic ecosystems through direct damage and smothering, but also poses significant risks to midwater ecosystems.[88] The far-reaching impacts of proposed deep sea mining activities in the Pacific are presented in the visualisation Blue Peril.[89] Based on scientific modelling, Blue Peril predicts it would take three months for the waste discharged by The Metals Company in its Tonga-sponsored contract area to reach Hawaiian waters, the Northern Line Islands of Kiribati and the United States.[90] This could potentially impact fisheries.

Similarly, noise pollution from deep sea mining operations could extend over vast distances. A recent study found that noise from a single mine could travel approximately 500 kilometres. This could affect deep sea species, many of which are dependent on sound to navigate, communicate, find mates, locate food and detect predators.[91] Deep sea mining would also create noise that overlaps with the frequencies cetaceans (such as whales and dolphins) use to communicate and navigate across the global oceans. This risks masking the calls between mothers and calves, or mating partners. It could cause behaviour change in marine mammals, increase the risk of mother-calf separation, disrupt feeding and force whales to surface quickly, impacting their health.[92]

**** The Mining Code comprises the rules, regulations, procedures, standards and guidelines for all mining activities on the deep seabed in international waters.

While deep sea ecosystems are still poorly understood, it is clear that deep sea mining would have severe harmful impacts on biodiversity, and lead to unavoidable biodiversity loss. Those effects will be both widespread and long lasting, reducing resilience of High Seas ecosystems and disturbing processes key to the regulation of the Earth system.

Deep sea mining also threatens the cultural heritage of Indigenous Communities in the Pacific. Many of whom have spearheaded resistance to this nascent industry in the national waters of Pacific Island states such as Papua New Guinea, as well as in the international seabed of the Clarion-Clipperton Zone. The dominance of private companies headquartered in Europe and North America in driving the rush to extract mineral resources from the Pacific Ocean has been criticised as a form of neo-colonialism.

While the Global Ocean Treaty will not stop deep-sea mining on its own, it does address the conservation of marine biodiversity on the seabed in ABNJ. Parties to the UNCLOS (and therefore the ISA) and the Global Ocean Treaty are specifically required to promote the objectives of the Global Ocean Treaty when participating in ISA decision-making and are required to cooperate with the Global Ocean Treaty. Therefore, the new Treaty increases the political pressure for states that are party to both to act consistently. The Treaty will also lead to greater transparency – for example, EIAs for ISA should be published on the Global Ocean Treaty Clearing-House Mechanism and monitoring results should be reported.

Sediment on the surface, coming from a nodule collector tested by one of the leading deep sea mining companies.

SHIPPING

Ships deliver 80% of the world's trade, many crossing international waters to do so. After a steep decline during the pandemic, and a massive hike in shipping costs, world maritime trade grew by 3.2% in 2021 to reach 11 billion tonnes. Growth was seen in all developing regions, with 5% growth recorded in Africa and 3% in Latin America, the Caribbean and Asia.[93]

The shipping industry impacts High Seas ecosystems through chronic oil pollution, noise pollution and the ever-present risks from accidents and spills, but the largest area of concern is greenhouse gas emissions. International Maritime Organisation (IMO) figures show the global total emissions of greenhouse gases (CO2, methane and nitrous oxide) from shipping increased from 977 million tonnes in 2012 to 1076 million tonnes in 2018 (9.6% incre1ase).[94]

While the freedom of navigation extended to all States and pursuant to UNCLOS, article 87 is unaltered by the Treaty, the environmental impacts of shipping will need to be considered to ensure they don't compromise the conservation objectives of a future potential MPA. For example, in certain instances, restrictions on speed and fuel consumption may need to be imposed and for some particularly vulnerable areas shipping may need to be rerouted. The overall requirement to protect the biodiversity of the High Seas should help drive environmental improvements through the IMO and in the shipping sector. These could include efforts to reduce harmful noise pollution or the use of open-loop scrubbers that discharge wastewater into the ocean. The IMO should proactively adjust its agenda to mesh with the requirements of the Treaty – for instance through extending the establishment of Particularly Sensitive Sea Areas (PSSAs) to areas beyond national jurisdiction.[95]

OPEN-OCEAN AFFORESTATION

In recent years, discussions emerged among scientists, policy makers and industry about the possibility of scaling up offshore seaweed cultivation and sinking it for carbon sequestration, as a 'nature based solution' to help mitigate climate change.[96] 'Ocean afforestation', as some of the advocates call this form of carbon dioxide removal (CDR), is even being considered at the ocean basin scale.[97]

There are major uncertainties about the climate intervention potential of ocean afforestation, but this is not the only aspect of ocean afforestation that needs careful consideration – ecological impacts, technical feasibility, economics, co-benefits and risks, governance and social considerations are all important.[98, 99, 100] One study looking at Sargassum in the (sub)tropical North Atlantic highlighted how altering the amount of floating seaweed through ocean afforestation could change the albedo (the reflection coefficient) of the ocean surface, so altering how much solar radiation is radiated back and how much heat the ocean absorbs. This shows the complexities inherent in this kind of approach.[101]

As Professor Boyd of the Institute for Marine and Antarctic Studies said, 'Ultimately, any CDR value could be negated by major large-scale detrimental effects to the structure and functioning of offshore ecosystems, and the services they provide to humankind.'[102]

Ocean afforestation is a new activity. As such, all High Seas projects will need to be scrutinised under the EIA requirements of the Treaty. While it is not an extractive activity, ocean afforestation is a major modification of the natural ecosystem and has no place in a MPA.

Over the years, the stresses on the marine life of the High Seas have only increased and looks set to increase further unless urgent action is taken. MPAs – and, in particular, fully and highly protected areas (ocean sanctuaries) – are one of the most powerful tools to protect species and habitats, rebuild ocean biodiversity, help ocean ecosystems recover and maintain vital ecosystem services. The new Global Ocean Treaty can deliver this protection on the High Seas.

Kelp Forest, Treshnish Isles, Scotland

3

BRINGING IT ALL TOGETHER

NEXT STEPS FOR THE GLOBAL OCEAN TREATY AND ESTABLISHING THE FIRST TRANCHE OF OCEAN SANCTUARIES

The increasing threats to High Seas ecosystems demand the establishment of a global network of ocean sanctuaries covering the High Seas. This need is greater now than it was when Greenpeace started campaigning for this in 2005.

Time is not on our side. Now the Global Ocean Treaty has been adopted, the world's governments must act swiftly if they are to meet the global 30x30 commitment and establish the first tranche of areas, and safeguard the species, habitats and ecosystem functions that help maintain the Earth system.

This will involve a twin-track approach of:

- → **implementing the Global Ocean Treaty – through ratification and bringing it into force, setting up the institutional framework (including the development of financial mechanisms and capacity building), and at the same time**
- → **developing proposals and progressing work on the first tranche of High Seas ocean sanctuaries, such as the three areas discussed in this report**

There is no time to lose.


© Shane Gross / Greenpeace

Siphonophore in the Sargasso Sea.


© Paul Hilton / Greenpeace

Hawksbill Turtle in Komodo National Park

ENTRY INTO FORCE

The Treaty will enter into force and become a legally binding instrument 120 days after 60 countries ratify it. The importance of rapid ratification is critical – ocean sanctuaries cannot be created on the high seas until the Treaty enters into force.

Ratification of other treaties has in the past often been slow – UNCLOS took 12 years to ratify. Given the urgency, Greenpeace and the High Seas Alliance are working to ensure that it is ratified by the 2025 UN Oceans Conference (UNOC).[103] When there is enough political will, countries can move faster to implement international agreements – for example, the Paris UNFCCC Agreement was ratified and entered into force within one year of being agreed.[104]

To meet this ambition, it is vital that High Seas protection is not allowed to drop down the political agenda now the Treaty has been adopted. All those that have advocated for the Treaty so far must continue to remind States of the benefits, opportunities and responsibilities that may result from ratification.[105] Awareness raising, information and capacity building can be provided through producing materials and convening workshops, webinars and high-level events. Various audiences will need to be engaged including the public, scientists, industry, parliamentarians and officials from relevant government agencies who will be responsible for implementing the Treaty.

To ratify, a State must codify the Treaty into national law. Helping with needs assessments and legislative resources may speed up this process in countries with less capacity.[106] Model laws, legal checklists and legislative guides could all contribute to easing the load.

Countries from the High Ambition Coalition have a clear role to play, setting a good example by swiftly ratifying themselves and reaching out to other countries to follow their lead, offering guidance and technical assistance. The European Union has committed to support the Treaty's ratification and early implementation through the EU Global Ocean Programme of 40 million euros. It is inviting others to do the same within their capabilities.[107]

FIRST STEPS TOWARDS IMPLEMENTING THE TREATY

There are procedural steps that are required to achieve the early entry into force and the early implementation of the Global Ocean Treaty. These steps include: setting up institutional arrangements, confirming funding and financial mechanisms, and deciding on a Secretariat. The drafting of key documents – such as agendas, rules of procedure, financial regulations and other modalities – is also required, to lay the groundwork for the functioning of the international agreement and its subsidiary bodies. Without this preparatory work, a huge amount of time would be spent at the first COP and, very probably, subsequent COPs.

Work on these steps must start immediately. Delay would risk not only the timely and full implementation of the Global Ocean Treaty, but could jeopardise 30x30 itself.

Loggerhead turtle caught in the net of a purse seiner in the northern Galapagos Islands.

INSTITUTIONAL FRAMEWORK

To fully implement the Treaty requires the setting up of various institutional arrangements, including: a Conference of the Parties, a Scientific and Technical Body and other subsidiary bodies of the Conference of the Parties, a Clearing-House Mechanism and a Secretariat.

However, before any of this can be achieved, some preliminary functions need to be fulfilled. For this reason, the UN has been assigned various functions beyond serving as the Depository for the Treaty, subject to approval of the UNGA. These include acting as an interim Secretariat – the Division of Oceans and Law of the Sea (DOALOS) is the obvious choice – and convening the first meeting of the COP no later than one year after the Treaty enters into force.[108]

Several delegations at the final IGC and many experts have also expressed their hope that a Preparatory Commission (PrepCom) is established to support the early entry into force and the early implementation of the Global Ocean Treaty. Funded by the regular budget of the UN and operating under the IGC's rules of procedure, the PrepCom could be tasked with drafting key documents, such as: agendas, rules of procedure, financial regulations and other modalities that lay the groundwork for the functioning of the international agreement and its subsidiary bodies.[109] The PrepCom could also make recommendations on institutional arrangements and draw up a provisional budget. These draft documents and recommendations would then be put forward for adoption of the first COP.

Without this preparatory work, we risk taking too much time at the first COP, and probably later COPs, sorting out these items.

FUNDING

As with other elements of the Treaty, work on this aspect cannot wait until the Treaty enters force, especially for achieving the 30x30 target. Various stakeholders are looking at how best to fund implementation of the Treaty.

Some ideas for innovative finance mechanisms are explored in a 2022 IUCN policy brief. These involve multiple stakeholders from finance, tech and conservation sectors, as well as philanthropies and government actors.[110] This document lays out the benefits of upfront investment and supports public-private partnership approaches.

To get the ball rolling, an interim working group on finance (set up by the PrepCom) could assist in securing start-up funding and identifying potential donors.[111]

Partnerships and commitments of monetary and non-monetary support will be essential to advance science, knowledge and action.

CAPACITY BUILDING AND TRANSFER OF MARINE TECHNOLOGY (CBTMT)

Non-monetary support is equally important as financial support. Both will be needed for CBTMT – one of the key elements of the Treaty for promoting equity between wealthier nations in the Global North and less resourced states in the Global South. This will help ensure developing countries – and, in particular, the least-developed countries and small-island developing states – acquire the resources, expertise and skills to fully engage and benefit from the Treaty.

Without effective CBTMT, many developing countries are unlikely to be able to fulfil their obligations, including those relating to ocean sanctuaries, or indeed realise their rights.[112] Help is therefore needed from more developed countries to increase capacity in the form of technical assistance, knowledge sharing, skill development, institution building, funding and development of good practices.

Here again, the PrepCom could set up a working group. This could look at CBTMT and work with States and regional organisations to assess national and regional capacity needs and priorities. This will involve assessing requirements, and building up a database and understanding of existing initiatives relevant to implementing the Treaty. This will ensure that efforts are not duplicated and opportunities for collaboration and expansion of these initiatives are not overlooked. UN Agencies and intergovernmental bodies, NGOs, scientific institutions and academia all have a role to play and, in particular, technology transfer will be greatly facilitated by collaborative marine research.[113]

SCIENCE

The final text for the Global Ocean Treaty emphasises the need for conservation and sustainable use of marine biodiversity in

ABNJ, on the basis of the best available science and scientific information.

Scientific research and information sharing is at the heart of and critical to the success of the Treaty. Agreed during the third year of the UN's Ocean Decade, the adoption of the Global Ocean Treaty is well-timed. It can help lever efforts to advance knowledge and capacity to understand and adapt to the many pressures now facing the ocean.[114] As a Nature editorial notes, the Global Ocean Treaty is 'a once in a generation opportunity for researchers and funders to use every idea and instrument available' to fill the gaps and restore the health of the ocean.[115]

THE CLEARING-HOUSE MECHANISM

The Clearing-House Mechanism – the open-access platform that will facilitate the access, provision and dissemination of information relating to the Treaty – and how it functions must be considered by the PrepCom. This starts with identifying needs, best practices and options for structuring, housing and facilitating its operations.

The Intergovernmental Oceanographic Commission of UNESCO (IOC/UNESCO) has put itself forward to support the set up and management of the Clearing House Mechanism. It is well positioned given its central role in collecting and sharing information and data.[116]

ADVANCING PROTECTIONS FOR OCEAN SANCTUARIES

In tandem with the work to implement the Treaty, work to develop the first tranche of future High Seas ocean sanctuaries must accelerate and not stall, especially considering increasing human pressures.

The Global Ocean Treaty sets out the process for establishing a protected area, as described in the next chapter of this report, Three High Seas areas in need of protection. The three case studies highlight some of the steps and actions essential to establishing ocean sanctuaries under the new framework and some shared obstacles to overcome.

BUILDING THE SCIENTIFIC CASE

To establish an ocean sanctuary under the Treaty, a State or group of States will need to submit a proposal. This must include the location of the area for protection, the threats it faces and a draft management plan with associated management measures. This should be based on the best available science.

The Sargasso Sea case study (see page X) illustrates how producing a baseline study in 2011 helped secure identification of the area as an EBSA. It also shows how rapidly the area is undergoing large environmental changes and how further research and ongoing monitoring are essential to understanding Sargasso Sea ecosystems and processes. The scientific work to produce the ecosystem diagnostic analysis for the Sargasso Sea will provide a useful model for other areas. It demonstrates how UN bodies, such as GEF, UNESCO/IOC and UNDP, can integrate with and aid Treaty-related work. This work also involves multiple partners and the kind of capacity building elements needed to support Treaty implementation and establishment of ocean sanctuaries.

While the next chapter focuses on three case studies for protection, the bigger picture must not be lost. The need to establish a global network of ocean sanctuaries in the High Seas remains. Greenpeace International's 2019 High Seas ocean sanctuary model enshrined key principles of networking to ensure ecological connectivity. The three case study areas were therefore part of a global representative network, with large connected areas that facilitate the movement of organisms between ocean areas and provide migratory corridors for species such as turtles, tunas and whales.[117]

For this reason, even before the Treaty comes into force, countries must adopt a systematic approach to network design. An approach that includes ecologically-important and representative areas, considers connectivity of separate sites and works at transboundary, regional and global scales.[118]

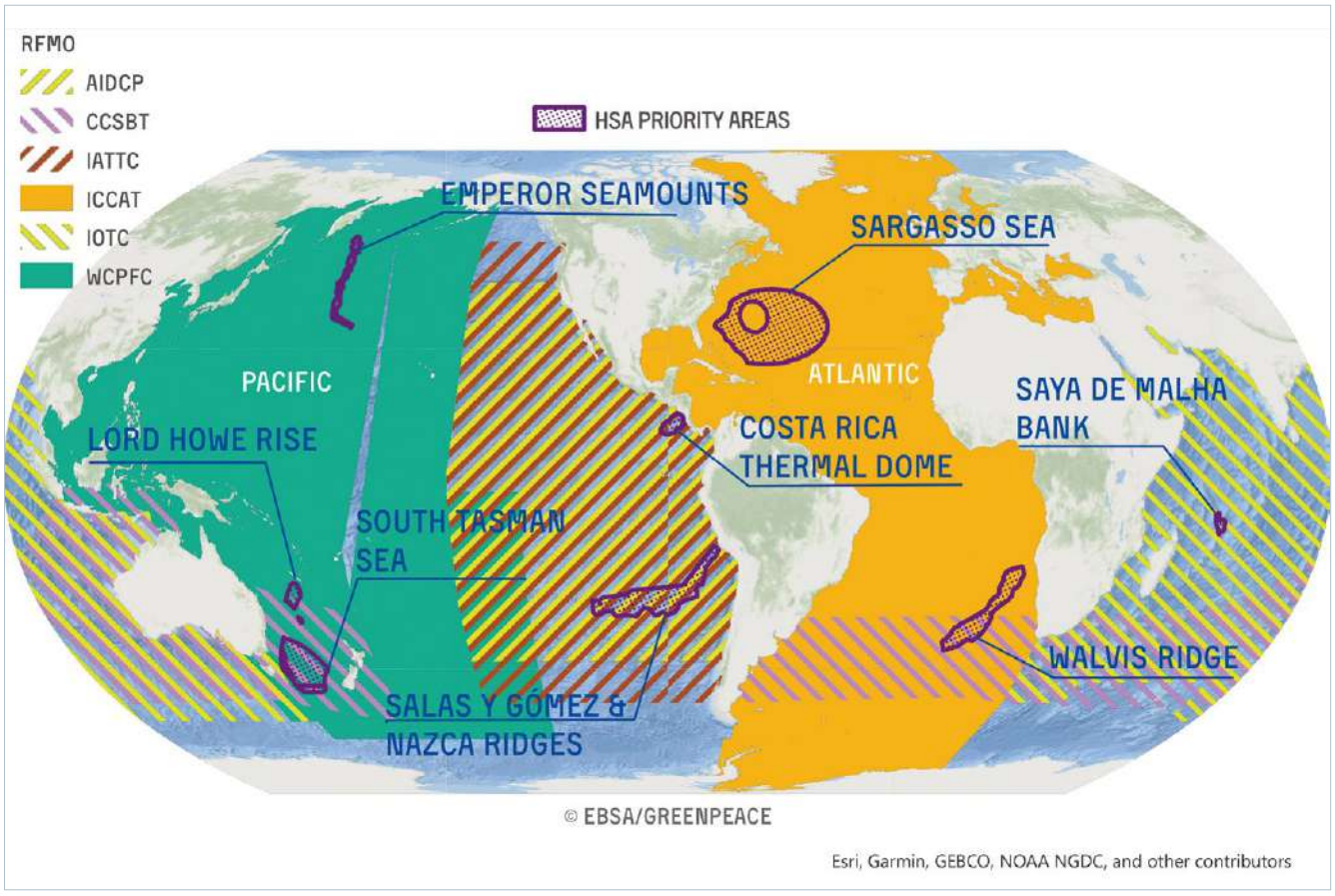
FISHING

RFMOs are not directly bound by the Treaty. However, they are key stakeholders that must be consulted on any MPA proposal submitted to the Treaty COP, alongside other global, regional, subregional and sectoral bodies. Proponents will consider their feedback and make revisions to the proposal, before review by the Scientific and Technical body and, ultimately, the COP.

If a High Seas MPA is approved and established by the Treaty COP, then all states party to the Treaty are bound by the MPAs management plan and respective measures. Parties are also required to promote the objectives of the Treaty when participating in other regulatory bodies. This includes advocating for the adoption of conservation and other measures that support the establishment of protected areas. However, the Treaty also makes reference to 'not undermining' existing management organisations.

States that have not ratified the Treaty will not be bound by BBNJ MPA management measures. However, these states may be members of relevant RFMOs and therefore bound by RFMO measures. So, to maximise the effectiveness of a High Seas MPA, it is wise for BBNJ MPA proponents to engage relevant RFMOs to take action and adopt complementary conservation measures. But this is not essential – the Treaty COP can still establish MPAs and management measures binding to its own parties. [119]

Destructive bottom fishing is devastating to deep sea biodiversity. It is a threat that must be stopped as soon as possible, because it is destroying the conservation value of some of the world's most valuable areas. For example, securing such a ban for the deep-sea habitats of the Emperor Seamounts and the South Tasman Sea/Lord Howe Rise (through the NPFC and SPRFMO respectively) would be a significant step towards safeguarding these areas – adding momentum to any future proposals put forward.



Map of the 6 largest RFMOs

ENVIRONMENTAL IMPACT ASSESSMENTS (EIAS) TO ADDRESS NEW HUMAN ACTIVITIES

The Sargasso Sea case study (see page X) highlights how ocean ecosystems and the threats they face are changing and increasing. Not only is the Sargasso feeling the impacts from environmental changes and pollution, but there may be impacts from proposed new activities, such as sinking Sargassum to mitigate climate change and deep sea mining. These show why EIA provisions are such an important part of the Global Ocean Treaty.

As a new activity, ocean afforestation in the High Seas would have to undergo the EIA process. This would need to consider possible negative impacts, such as possible changes to ocean chemistry and microbial ecology.[120] The process ensures that any project is subject to detailed public notice and consulted on and managed to prevent, mitigate or manage significant adverse effects. The Treaty's Scientific and Technical body would also scrutinise EIAs.

In further reference to the case study, while ocean afforestation with its attendant risks might be proposed as an activity within the Sargasso itself, deep sea mining operations that might negatively impact the Sargasso Sea are more likely to be conducted in adjacent waters along the mid-Atlantic Ridge. The impacts could come from long-range pollution carried by ocean currents.

Similar to High Seas fisheries and the RFMOs, the Global Ocean Treaty does not regulate deep sea mining as it is under the authority of the International Seabed Authority (ISA). However, the Treaty addresses the conservation of marine biodiversity on the seabed in ABNJ. As a result, countries party to both the Global Ocean Treaty and the ISA will have certain obligations they must follow once the Treaty enters into force, including promoting the objectives of the Treaty when at the ISA. For deep sea mining, parties would need to ensure the ISA follows the EIA procedures laid out in the Treaty.

Most importantly, deep sea mining is incompatible with a sustainable future. To prevent the unavoidable and irreversible harm that deep sea mining would cause, governments should ensure that deep sea mining does not start anywhere across the global oceans – including outside of ocean sanctuaries.

Implementing the EIA and Strategic Environmental Assessment (SEA) requirements of the Treaty will require the development and fostering of scientific, technical, and policy expertise in many countries through scientific projects and assessments (facilitated by CBTT provisions of the Treaty), so they have the institutional and scientific capacity to conduct EIAs and SEAs when the Treaty enters into force.

BUILDING POLITICAL SUPPORT

No single country can establish a High Seas ocean sanctuary on its own. All three case studies highlight that champion countries need to collaborate and build support for protection, if they are to achieve consensus or even win a vote in the COP. This takes time and needs investment of political capital, and proactive outreach and engagement. Public campaigns run by NGOs and others can build the wide-ranging public support that governments need to see before they invest that political capital.

Work will need to be done in the lead up to and in meetings of sectoral organisations (such as the RFMOs and the ISA). All stakeholders need to be engaged in developing proposals. For example, key stakeholders for a South Tasman Sea /Lord Howe Rise MPA include the New Zealand Maori. In the case of the Emperor Seamounts, discussions need to happen with the Hawaiian coastal communities, who could benefit from High Seas protections in adjacent international waters.

In the past, Indigenous Peoples have mostly been ignored, or worse, in the development of global instruments. The Global Ocean Treaty provides an opportunity to work out how to best incorporate traditional environmental knowledge into decision making for the Treaty as a whole and the establishment of MPAs in particular.

To ready a proposal in time for the first COP, this work needs to start now.

Safeguarding High Seas biodiversity is a shared responsibility. Choices and actions taken in the next few years will have impacts now and for thousands of years to come. Having agreed and adopted the Global Ocean Treaty and the 30x30 protection target, states must act immediately to ratify the Treaty, implement it and prepare ocean sanctuary proposals that are supported by other parties, so the first protected areas of a global ocean sanctuary network are in place as soon as possible.

4

THREE HIGH SEAS AREAS IN NEED OF PROTECTION

The Global Ocean Treaty offers a valuable opportunity for governments to put biodiversity front and centre when considering how best to manage the High Seas for current and future generations.

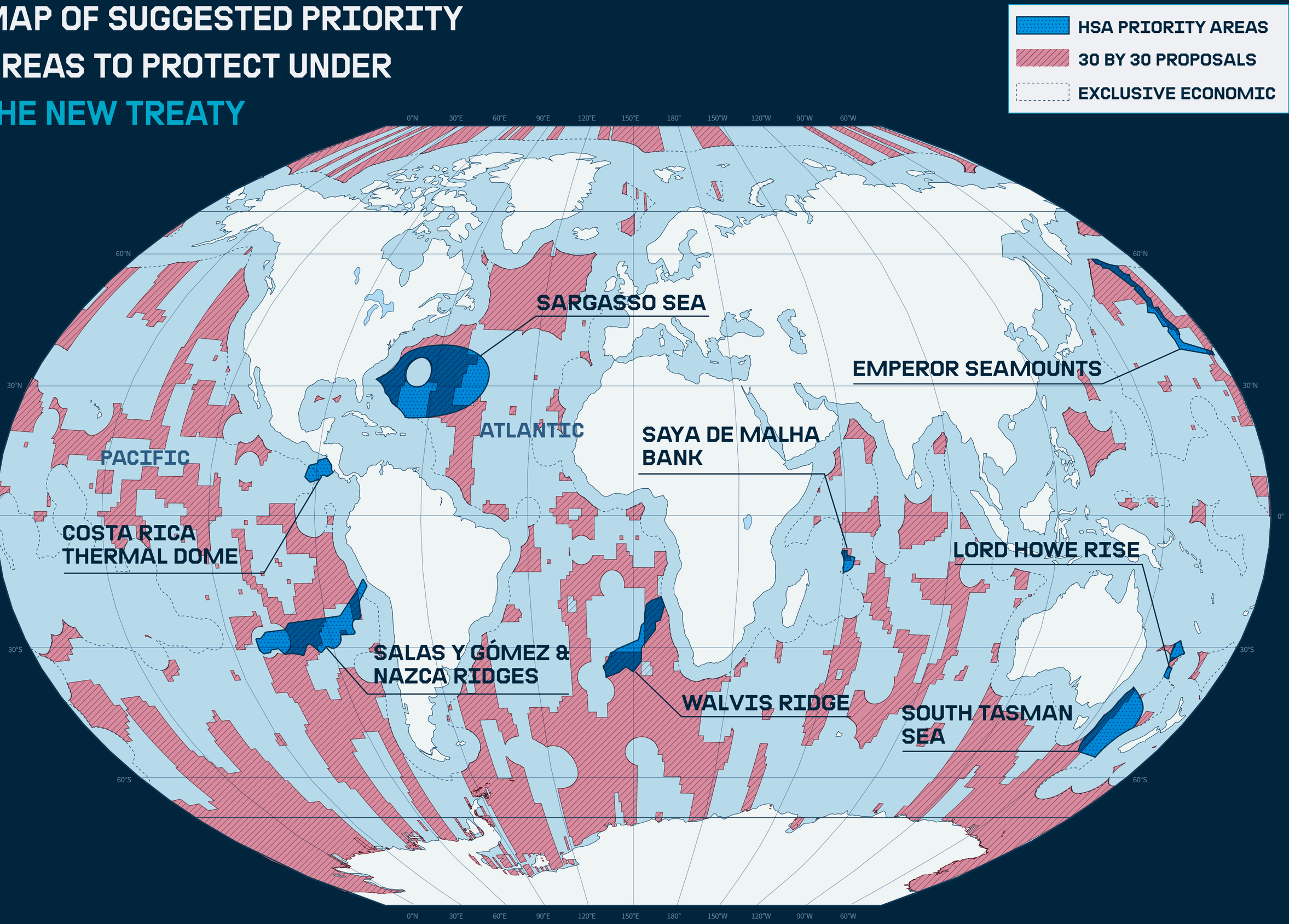
At least 60 countries must ratify for the Treaty to enter into force. But countries cannot wait until the Treaty enters into force to progress establishing the first ocean sanctuaries. The increasing and emerging threats to High Seas ecosystems demands preparation happens alongside other Treaty processes.

The High Seas Alliance have identified a number of sites to prioritise for protection[121]. All are widely recognised as areas biodiversity hotspots through their EBSA status[122], and many overlap with Greenpeace's global network model.

Among those, the Emperor Seamounts, the Sargasso Sea and the South Tasman Sea/Lord Howe Rise provide valuable case studies as to how far current protection efforts have progressed, and what may be the next steps to be taken now that the Global Ocean Treaty has been adopted.

Flying Fish in the Sargasso Sea.

MAP OF SUGGESTED PRIORITY AREAS TO PROTECT UNDER THE NEW TREATY



EMPEROR SEAMOUNTS

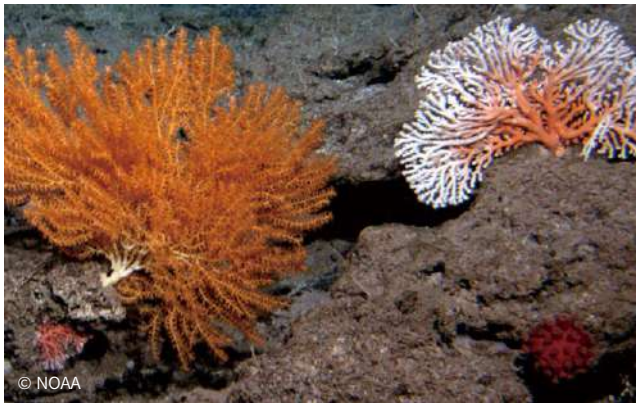
Seamounts are biodiversity hotspots in the High Seas but are heavily fished globally by destructive fishing practices.

The Emperor Seamounts are widely recognised for their outstanding biodiversity, and illustrate how these vulnerable ecosystems suffer due to the inadequacies of the current governance regime – where sectoral interests dominate biodiversity issues. As work continues to implement the Treaty, stopping any further destruction of the Emperor Seamounts by bottom trawlers is a first crucial step to fully protecting them.

LOCATION OF THE EMPEROR SEAMOUNTS

The Emperor Seamounts is a chain of more than 800 seamounts in the North Pacific. They arch northwest of the Hawaiian Islands toward Aleutian Islands and end at the Kuril-Kamchatka Trench.

At their southern end lies the Northwest Hawaiian Ridge, the southernmost portion of which falls within US national waters. This area has been afforded protection by the United States government. The protected area is named the Papahānaumokuākea Marine National Monument. At 1,508,870km2, it is one of the world's largest MPAs, as well as a UNESCO World Heritage Site.[123] Papahānaumokuākea and the wider ocean area beyond hold a deep cosmological and traditional significance for living Native Hawaiian culture, as an ancestral environment and embodiment of the Hawaiian concept of kinship between people and the natural world.[124]



Coral in the Emperor Seamounts

STUDYING THE SEAMOUNTS

The Emperor Seamounts are a biologically rich and productive area, with a high level of species richness, including threatened as well as endemic species.

Seamounts are underwater mountains (or topographical features) that rise more than 100m above the surrounding seafloor, where the seafloor is more than 200m below the surface. [125] Movement of currents around the seamounts washes away sediment from some surfaces, allowing for the colonisation of non-moving (sessile) species including corals. These currents also bring a constant supply of food to the marine life living on the seamounts and carry up nutrients from the deep ocean (upwelling), fuelling plankton production. This attracts fish, which then become food for larger animals such as tuna, sharks, whales and seabirds. As such, Seamounts are recognised as 'oases of life' in the ocean due to their high biodiversity.[126]

Most seamounts in the Emperor Seamount chain are classified as guyots (or tablemounts).[127] Guyots have flat summits, which were originally above the surface but then planed off by the waves as they subsided into the depths. They provide varied habitats for benthic organisms with their mix of hard substrates and soft sediments on ledges and depressions.

Because of their depth and remoteness, seamount biodiversity and ecosystems was very hard to study until recently. Most research about the Emperor Seamounts' biodiversity is linked with the fisheries on the seamounts, and therefore focused on commercial fish species and some benthic species.

New technology has facilitated research and two 2019 expeditions to the Emperor Seamounts – one Russian and one American – have made use of remotely operated vehicles (ROVs) to advance our knowledge of the region's biodiversity.[128, 129]

BIODIVERSITY OF THE EMPEROR SEAMOUNTS

From these and other studies, we know the Emperor Seamounts are home to a rich variety of cold-water corals and sponges. These are considered foundation species – meaning they provide a food source for predators and habitat for many species, such as crabs, squat lobsters and sea stars as well as nursery habitat for benthic fishes of commercial importance.

Slender armorhead Pentaceros wheeleri and splendid alfonsino Beryx splendens are among the fish found in the area. They are the two main target species of the demersal fisheries conducted in the region. Recently a new species of eelpout (Lycodapus) was discovered – suggesting that even in long-fished areas of the deep sea, much is still unknown.[130, 131]

Marine mammals believed to be present in the region include 15 dolphins and small- and large-toothed whales (odontocetes), 8 baleen whales and 4 flipper-footed (pinniped) species.[132] Large whales – such as blue, sperm, humpback and North Pacific right whales –may be found in the region, though all are considered uncommon. Seamounts are known to play an important part in the migration and life cycles of various whale and shark species. Whales, for example, may use them to navigate from breeding to feeding grounds.[133]

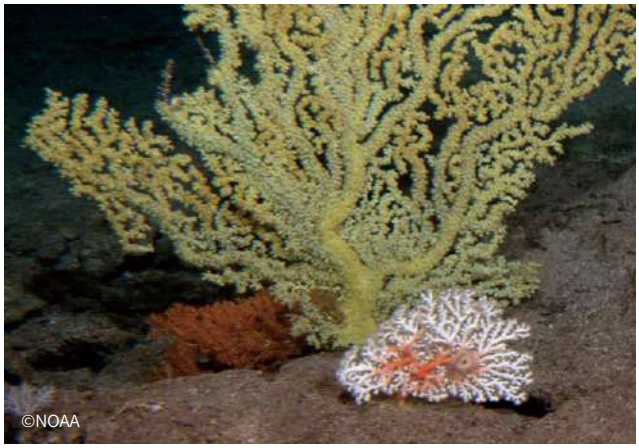
Many birds also use the Seamounts for foraging. Laysan and black-footed albatrosses are among them.[134] One of these is the world's oldest known wild bird – a Laysan albatross known as Wisdom, who hatched in 1951 and was banded in 1956.[135, 136]

PRESSURE FROM FISHERIES

The Emperor Seamounts historically faced high fishing pressure from bottom trawling and continue to face some pressure from bottom fisheries. An expert workshop in 2018 determined that: significant adverse impacts on corals had occurred in the past; the impacts are likely still occurring; and they are likely to continue if the fisheries continue with the current regulatory mechanism. Bottom fishing has destroyed significant amounts of slow-growing deep-sea habitat. It is also threatening species that are slow to recover[137] and endangering the health of the fishery itself and others.

Fishing using bottom trawls and gillnets began on the Emperor Seamounts in 1967, when Soviet trawlers discovered large groups of pelagic armorhead. The Seamounts are where these fish spawn and live out the last years of their life – making them extremely vulnerable to overexploitation. Japanese vessels joined the Russian fleet later. Together they moved from seamount to seamount, landing between 50,000 and 210,000 tonnes of armorhead each year. After 10 years, having taken 800,000 tonnes in total, the fishery was so depleted that the fleet shifted its focus to another fish, alfonsino.[138]

This continued until the 1980s and amount to some of the greatest seamount catches taken globally.[139] The area has seen lower levels of bottom fishing since, yet well over 90% of reported bottom trawl catch still consists of North Pacific armorhead and splendid alfonsino. The catch in the bottom gillnet and longline fisheries consists of a range of species. Both these fishing methods are associated with high levels of bycatch. Longlines are now the most prevalent fishery in the site, as shown in the research that follows.

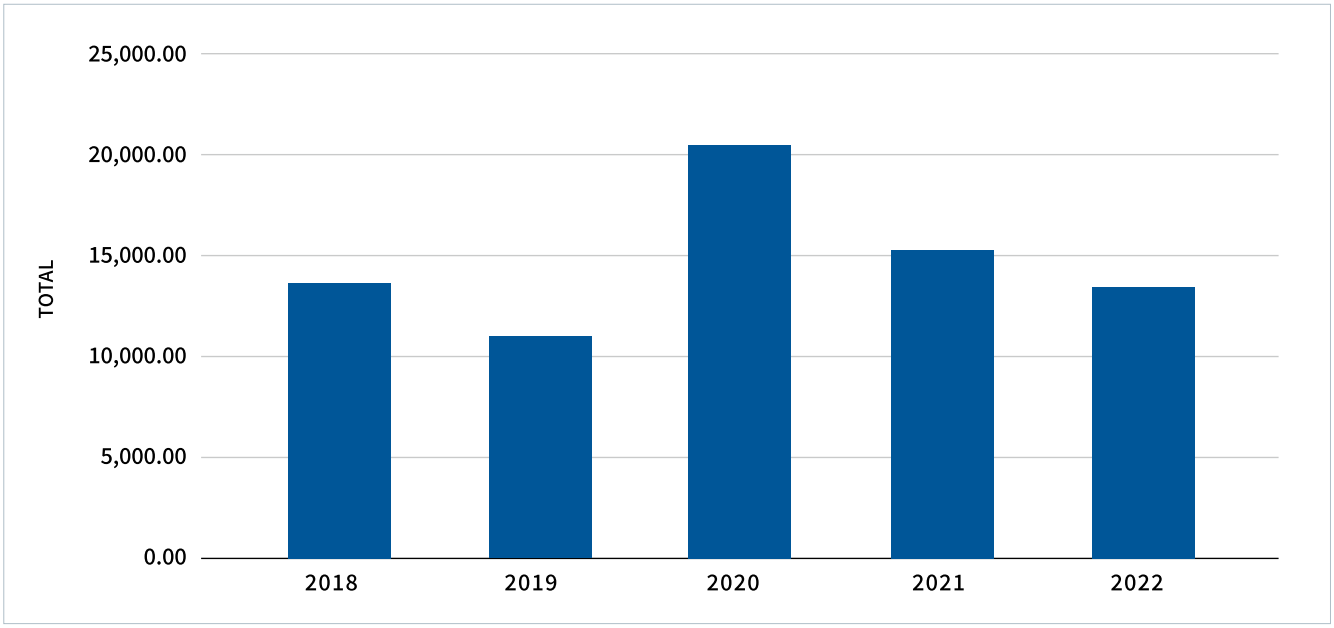


Gold coral in the Emperor Seamounts

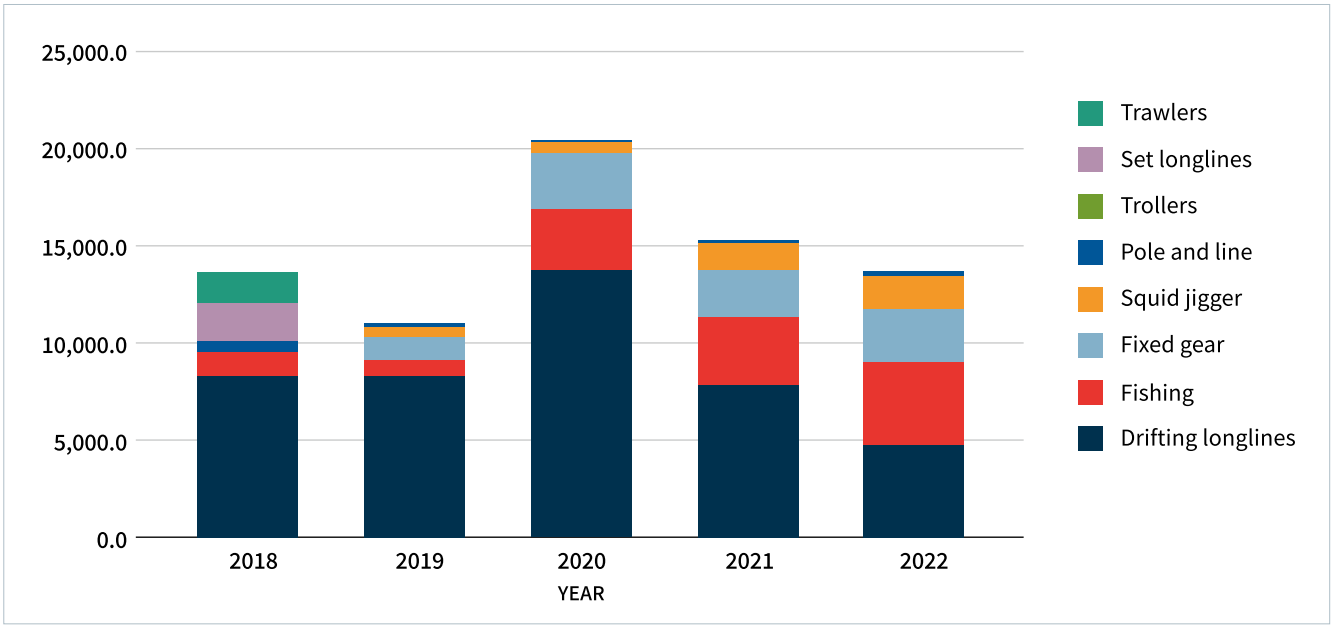
NEW RESEARCH FINDINGS

Greenpeace International's new research shows the apparent fishing activity occurring in the Emperor Seamounts over the last five years. It reflects some of the global patterns:

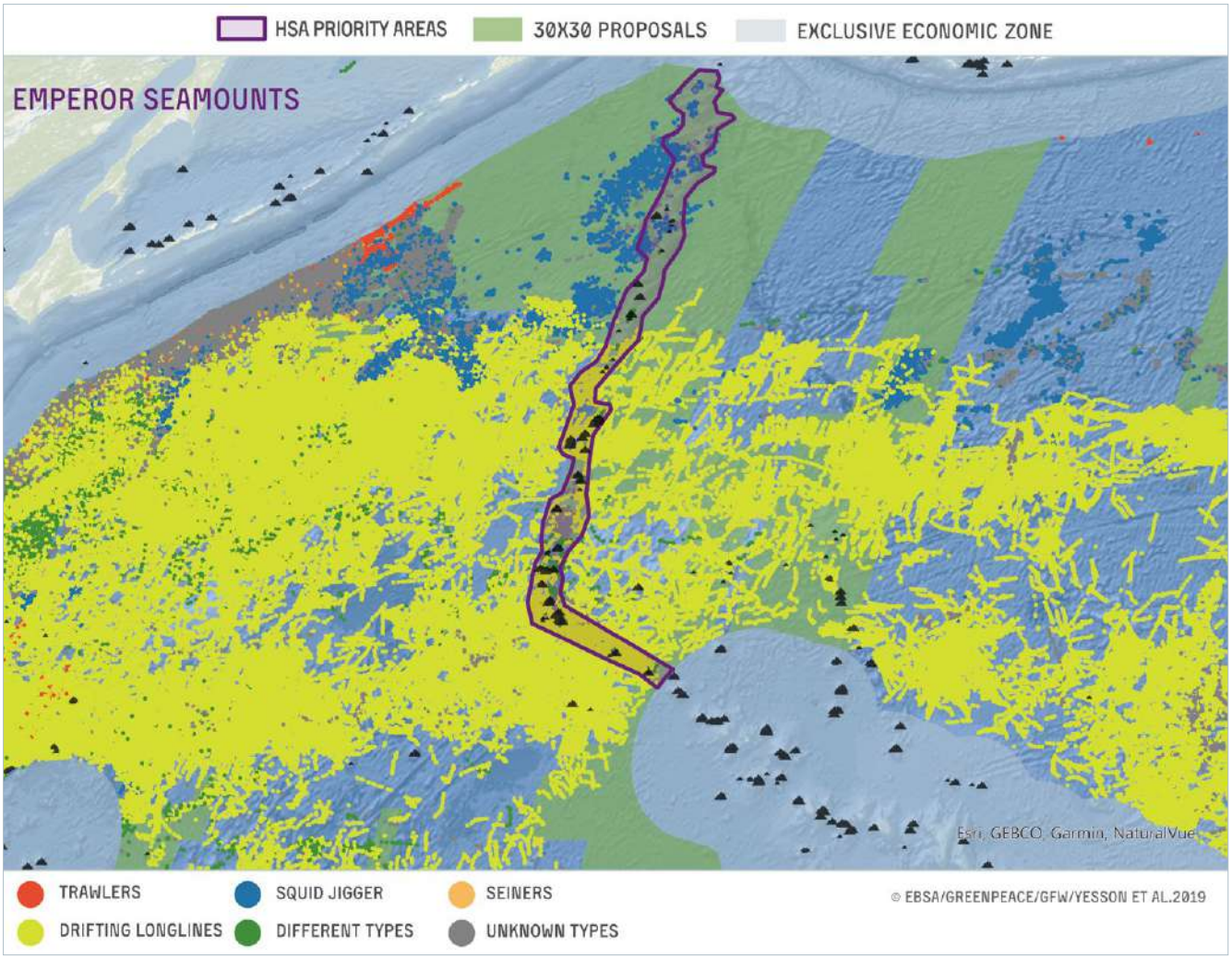
- → Drifting longlines are the predominant fishing method, making up 57.9% of the fishing activity from 2018 to 2022
- → 17.6% of the fishing couldn't be attributed to a particular gear type
- → A mere 2.1% of fishing activity during the five year period was classified as trawling
- → Although apparent fishing hours declined in 2021, like the overall high seas fishing, it did not rebound in 2022 and instead continued to fall
- → The large majority of fishing in the Emperor Seamounts is conducted by vessels flagged to Japan (45.3%) and Taiwan (33.7%)



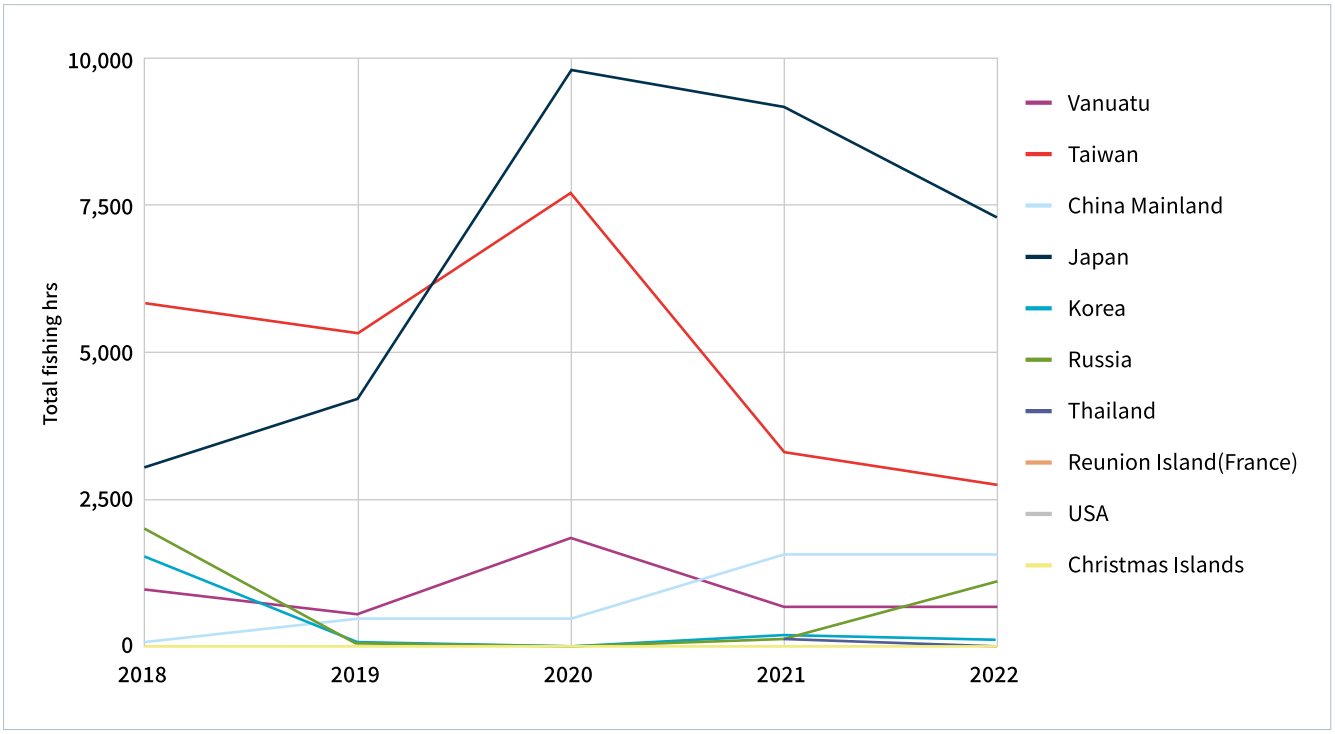
Total apparent fishing hours in Emperor Seamounts



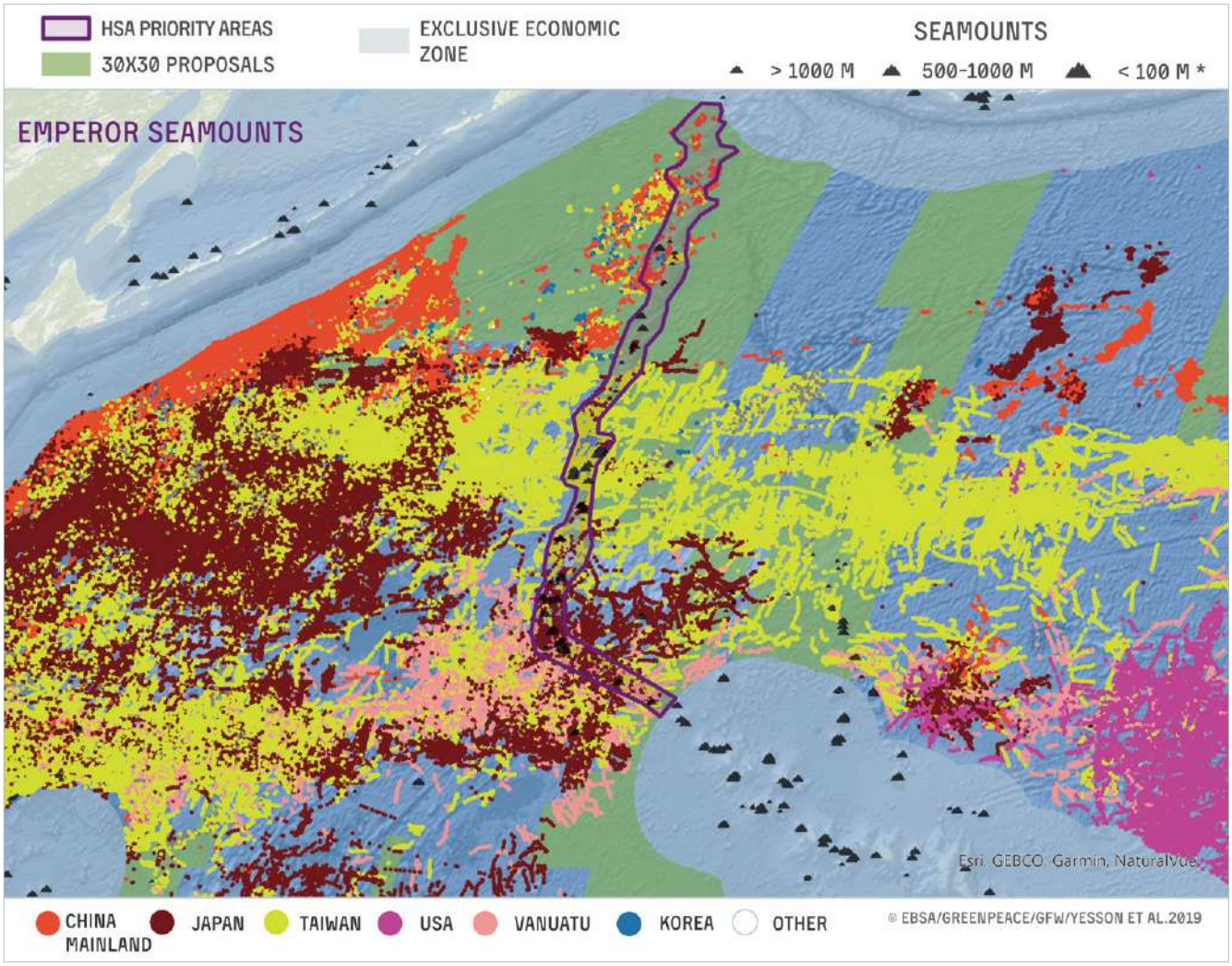
Total apparent fishing hours by fishing method
'Fishing' is unclassified fishing types, meaning Global Fishing Watch has been unable to determine the type of fishing vessel.



Fishing gear types in the Emperor Seamounts



Total apparent fishing hours by flag in the Emperor Seamounts



Fishing fleets by flag in the Emperor Seamounts

THE CASE FOR PROTECTION

The Emperor Seamounts clearly fit the Global Ocean Treaty criteria for protection as oases of marine life and an area threatened by human activities. The ecological value of the Emperor Seamount Chain and Northern Hawaiian Ridge is well recognised.In 2016, this area was identified as an EBSA, although it scored low on the naturalness criteria due to past fishing impacts.[140]

However, there is hope for its recovery. Recent research has shown that depleted seamounts in the Northwestern Hawaiian Ridge and Emperor Seamounts that have been protected for more than 30 years are showing signs of corals regrowing from fragments and higher abundances of benthic megafauna.[141] This is encouraging, and demonstrates some recovery of seamount deep-sea coral communities may be possible on 30-40 year time scales with long-term protection.

As well as its EBSA status, the IUCN and the World Commission on Protected Areas (WCPA) called for the area's protection in their initial list of 'High Seas Gems' published in 2008.[142] Mission Blue also has the Emperor Seamounts listed as one of its' Hope Spots'.[143]

Awareness of the need to protect vulnerable deep-sea habitats and species has grown in recent years. Various civil society organisations are actively campaigning to secure the Emperor Seamounts as one of the first tranche of High Seas ocean sanctuaries. High among these are the Deep Sea Conservation Coalition (DSCC) and the High Seas Alliance (HSA). Joining these global coalitions is the Coral Reef of the High Seas Coalition, which is now starting to build up the scientific case and raise awareness of this region.

Political support is building too. In November 2021, Leading Women for the Ocean network members – Wendy

Watson-Wright (Former Executive Secretary of UNESCO's Intergovernmental Oceanographic Commission), Maria Damanaki (Former EU Commissioner for Maritime Affairs and Fisheries) and Debbie Remengesau (Former First Lady of Palau) – voiced their support for protection with the video The Emperor Seamounts – the hidden natural wonders of the world.[144]

PATHWAY TO PROTECTION UNDER THE TREATY

For the Emperor Seamounts to be established as a protected area under the Global Ocean Treaty, a proposal will need to be submitted to the COP.

The United States of America is a possible country champion for the Emperor Seamounts, given its positive role on the issue of deep-sea fishing before, both within the RFMOs and in the UNGA.[145] In December 2022, Monica Medina, Assistant Secretary for the Bureau of Oceans and International Environmental and Scientific Affairs, stated 'destructive fishing practices are harming vulnerable marine ecosystems all over the world. We have to put an end to these practices', showing an intent to take further action.[146]
Another reason for the US to support the establishment of this MPA is that it would complement the existing Papahānaumokuākea Marine National Monument.

This would increase ecological connectivity, helping build resilience in both areas. It also makes sense because some of the chain lies within US waters, thereby providing continuity of protection from national waters into the high seas, which may help recovery of commercially targeted fish.

However, for a proposal to be successful, countries will need to work together. Proposals with multiple champions are more likely to be adopted. One country that could be key to securing the Emperor Seamounts MPA is South Korea. While it is a distant fishing nation, South Korea showed a more conservation-oriented position during the most recent IGC negotiations than it has before. The Korean Ministry of Foreign Affairs convened a workshop on the Treaty and the country will host the Our Ocean Conference in 2025. South Korea will likely continue to build a strong national image for ocean conservation, regardless of April 2024 election results.

As the most recent scientific expeditions to the Emperor Seamounts have revealed, there is still much to learn about the Seamounts' marine ecosystems and their functions. Collaborative scientific expeditions are another key element of progressing protection and building international support. This is when scientists from developing states are invited to conduct research with scientists and institutions from wealthier nations. Doing this would help fulfil the capacity building requirements of the Global Ocean Treaty.

Reef fish - Papahānaumokuākea Marine National Monument

WORKING TO END FISHING THREATS

Stopping the remaining bottom fishing is the first practical step to properly protect the Emperor Seamounts and create a future ocean sanctuary. Bottom fishing in the area makes up just 2.1% of all apparent fishing activity but IS HIGHLY DESTRUCTIVE. The next step is to address drifting longlines, which makes up most (57.9%) of apparent fishing activity in the area.

Doing this involves the relevant RFMO – the North Pacific Fisheries Commission (NPFC).[147] As well as regulating the slender armorhead and splendid alfonsino targeted by bottom trawl fisheries, the NPFC also regulates fishing for Pacific saury, chub mackerel, sablefish, Japanese sardine, neon flying squid and Japanese flying squid.

The NPFC membership includes Canada, China Mainland, the European Union, Japan, the Republic of Korea, the Russian Federation, Taiwan, the United States of America and Vanuatu. Panama is a 'Cooperating Non-contracting Party'. The European Union (EU) officially became a member of the NPFC on 23rd March 2022.[148]

Since coming into force in 2015, the NPFC have put some fishing conservation measures in place along the Emperor Seamount chain. A review of these measures was undertaken by the DSCC in 2020.[149] At its 2023 meeting, the NPFC agreed a new conservation measure. This limits fishing effort in bottom fisheries on the western part of the Convention Area to the level agreed in February 2007 and stops bottom fisheries from expanding into the western part of the Convention Area where no such fishing currently occurs.[150]

However, this and previous measures fall short of what is needed to protect these ecosystems. A 2020 US Government position paper submitted to the NPFC Scientific Committee proposed adopting a precautionary approach and a closure of all the seamounts to bottom contact fisheries until the gear being used can be proven to not cause significant adverse impacts.[151] Such measures should not only apply to untrawled areas (taking a 'freeze the footprint' approach), but to areas that are actively fished too. This would allow damaged or destroyed benthic ecosystems to regenerate and rebuild commercially important populations of fish, which are recognised as depleted by all members of the NPFC.

Given the limited bottom fishing that is currently taking place on the Emperor Seamounts and the consensus on the need to protect vulnerable corals and associated deep sea ecosystems, now is the time for the NPFC to put a stop to bottom fishing. Countries in the NPFC, like the US and Canada, must work with those countries still fishing to show the multiple long-term environmental benefits from protection outweigh the short-term economic costs of closing the fishery.

Japan is the only country with a vessel that has been bottom trawling in the area in recent years. Countries advocating protection should work bilaterally with them to persuade them to stop bottom fishing on the Emperor Seamounts. This could pave the way for the NPFC to adopt a formal regulation to end bottom trawling, stopping the threat it poses in the region to allow for recovery of deep sea biodiversity.

This should be feasible. The US and Canada have already led successful efforts to close all seamounts at fishable depths to bottom fishing, on the High Seas of the Northwest Atlantic Fisheries Organisation (NAFO) area in September 2021.[152]

IN SHORT

Closing the Emperor Seamounts to bottom trawling is the first step towards protecting the area. The area is important for its unique and valuable marine life, and it is vulnerable to exploitation – especially by longlining, the most prevalent fishing gear used there. It needs to be established as a highly or fully protected MPA under the Global Ocean Treaty. To achieve this, a group of champion countries must now step forward and develop a proposal with conservation objectives and a management plan. This should be put before the COP as part of a first tranche of MPA proposals.

Red fish in Papahānaumokuākea Marine National Monument

SARGASSO SEA

The Sargasso Sea is repeatedly singled out as a high-priority area for protection, because it is the only sea without a land boundary and has unique and highly diverse marine life.

As it comes under increasing pressure from a wide range of threats, political momentum to improve its management has built up over the last decade, so that the Government of Bermuda, has been joined by Azores, Monaco, the UK, the US, Government of the British Virgin Islands, Bahamas, Canada, Cayman Islands and the Dominican Republic in committing to promote the conservation of the Sargasso Sea.

The Sargasso Sea Commission has played a major role in raising awareness and galvanising support. However, its work highlighted the difficulties in securing actual protection measures without the right framework. The new Treaty now provides this framework, and a model to establish a global network of ocean sanctuaries and achieve the 30x30 target. The time to start is now.

LOCATION OF SARGASSO SEA

The Sargasso Sea is located within the North Atlantic Subtropical Gyre. It has no coastlines, instead bounded on all sides by major ocean currents rotating clockwise. The Caribbean and United States lie to the west, and the Azores and West Africa to the east. Its core area covers about 2 million square nautical miles around the islands of Bermuda, most of which lies beyond the national jurisdiction of any state.

The Sargasso region experiences light winds and little rain. Coriolis forces acting on ocean currents in the North Atlantic Gyre push water inward toward the centre of the gyre and the Earth's rotation offsets it west. The Sargasso is thus a region of convergence of currents and gentle downwelling.[153]

BIODIVERSITY OF THE SARGASSO SEA

The high biodiversity value of the Sargasso Sea was made clear in the 2011 landmark report of the Sargasso Sea Alliance The Protection and Management of the Sargasso Sea – the Golden Floating Rainforest of the Atlantic Ocean. This sets out the science case for protection.[154]

Converging currents bring together flotsam and jetsam, and higher nutrients foster growth of great, floating mats of two species of Sargassum seaweed. This 'golden floating rainforest' hosts a rich and diverse community, including ten endemic species.

Sargassum mats are home to more than 145 invertebrate species and more than 127 species of fish. The mats act as important spawning, nursery and feeding areas for fish, turtles and seabirds. In deeper water, the Sargasso Sea is the only known spawning area for both the endangered American eel (Anguilla rostrata) and the critically endangered European eel (Anguilla anguilla).[155] Sargassum is important to the feeding habits and ecology of many of these predators because it provides habitat for key prey species such as flying fishes.

Importantly, the Sargasso Sea acts as an ecological crossroads in the Atlantic Ocean, linking its own distinct ecosystem with Africa, the Americas, the Caribbean and Europe. 30 or so cetacean species – such as humpbacks, baleen whales, sperm whales and orcas – have been recorded in the Sargasso, travelling from their Caribbean breeding grounds to feeding areas in the North Atlantic. Several tuna species, turtles, sharks, rays and swordfish are among the other ocean travellers. Atlantic leatherback turtles migrate across the Sargasso from nesting beaches in Guyana to feeding grounds off Nova Scotia, Canada.

Better tracking with satellite tagging techniques has improved our understanding of animal movements. This is the case with mako sharks in the Sargasso Sea.[156]

Prior to a long-term satellite tracking study, it was thought mako sharks left cooler northern waters to overwinter in more favourable thermal conditions of the Sargasso Sea, but researchers found that, while sharks did move into and traverse the Sargasso Sea, they didn't linger. While water temperatures might suit the sharks, researchers suggest lower productivity means there is limited food for foraging

in the area. The relatively weak currents in the Sargasso may also enable sharks to move through it efficiently, so the Sargasso acts as a migration corridor.

Only as recently as 2022 did tagging reveal the first direct evidence of adult European eels migrating to their breeding place in the Sargasso Sea – despite a century passing since it was first suggested they make such a long migration.[157]
The cahow or Bermuda petrel (Pterodroma cahow), breeds on Nonsuch Island and some nesting islets, but forages over a large range in the High Seas and waters further north all around the Gulf Stream.[158] The national bird of Bermuda was once thought extinct and is now classified as endangered.

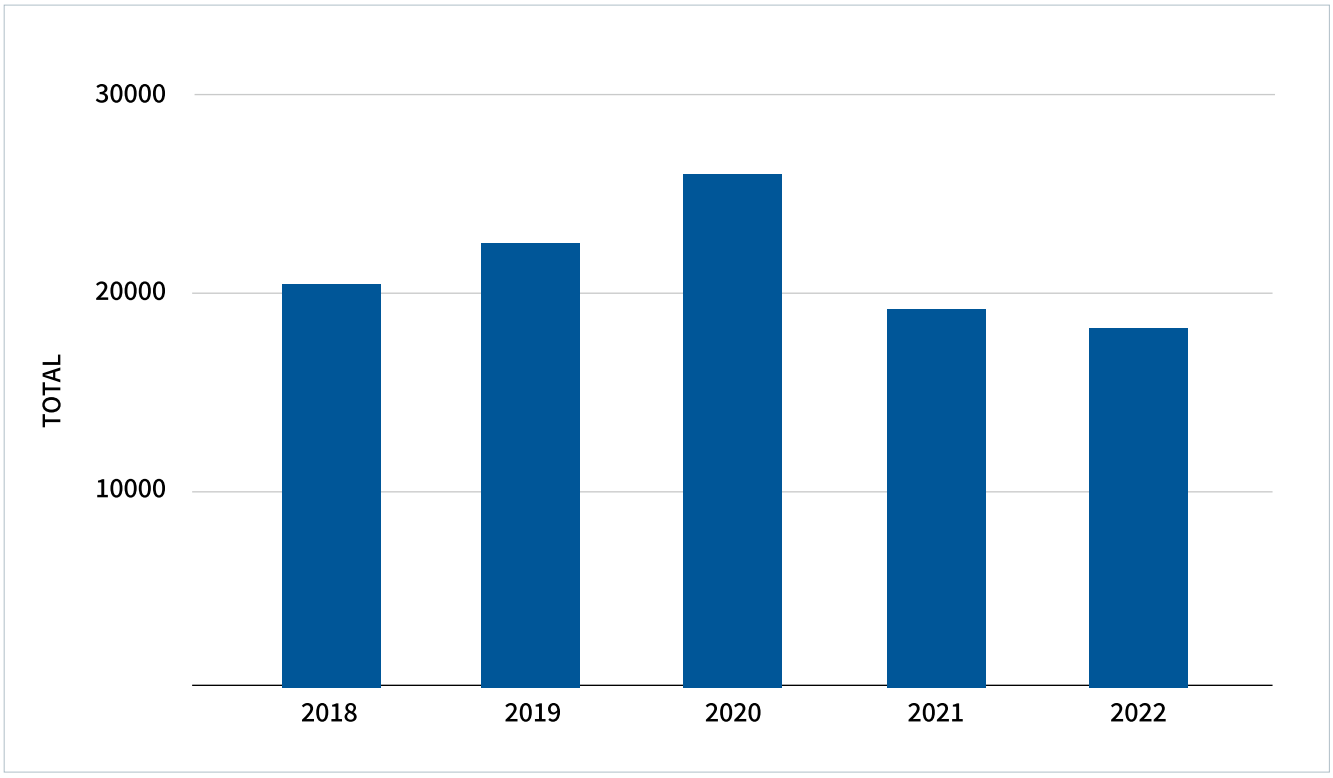
PRESSURE FROM FISHERIES

The Sargasso Sea is an important fishing ground for vessels from the wider Caribbean region and from various distant water fishing nations. Bermuda's local fisheries target pelagic species like wahoo and yellowfin tuna within their EEZ, which make a significant proportion of their national andings. In other Caribbean waters, commercial fishers take wahoo, dolphinfish and amberjack, which all depend on the Sargasso Sea in various parts of their lifecycle.

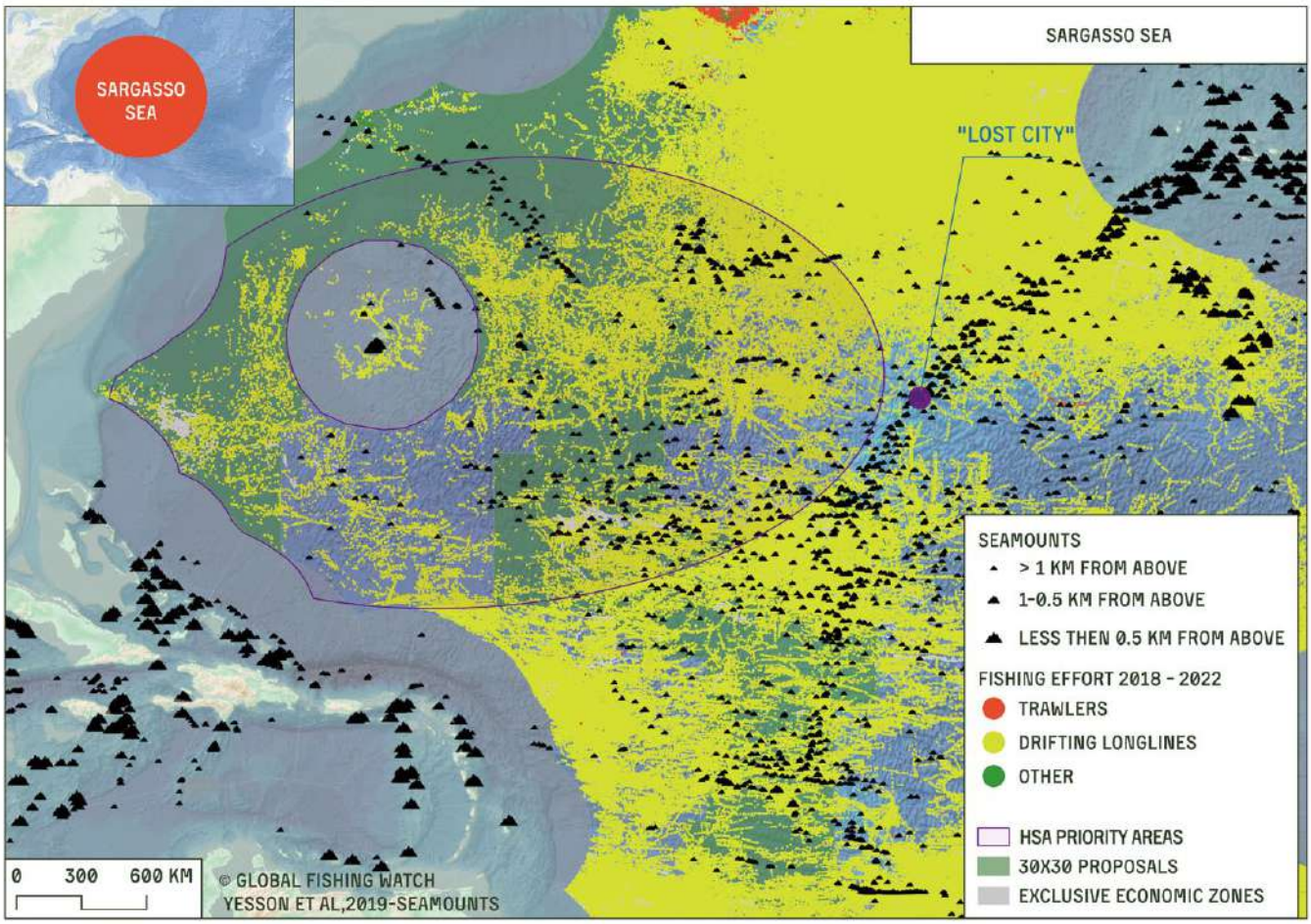
The Sargasso, and the wider area, is crucially important in the lives of American and European eels. Both are fished in the EU and US respectively. While multiple factors have led to their drastic decline, commercial exploitation in other parts of their ranges is one of them. In 2023, the European Commission proposed that the annual eel fishery closure should double from three to six months.[159]

Fishing vessels from distant water fishing nations employ a variety of fishing gears, mainly to catch tuna and billfish in the High Seas of the Sargasso Sea. Most species of interest to these international fleets are highly migratory. Many of the fish caught in the wider Atlantic depend on the Sargasso Sea for different life stages, and so depend on the health of the Sargasso.

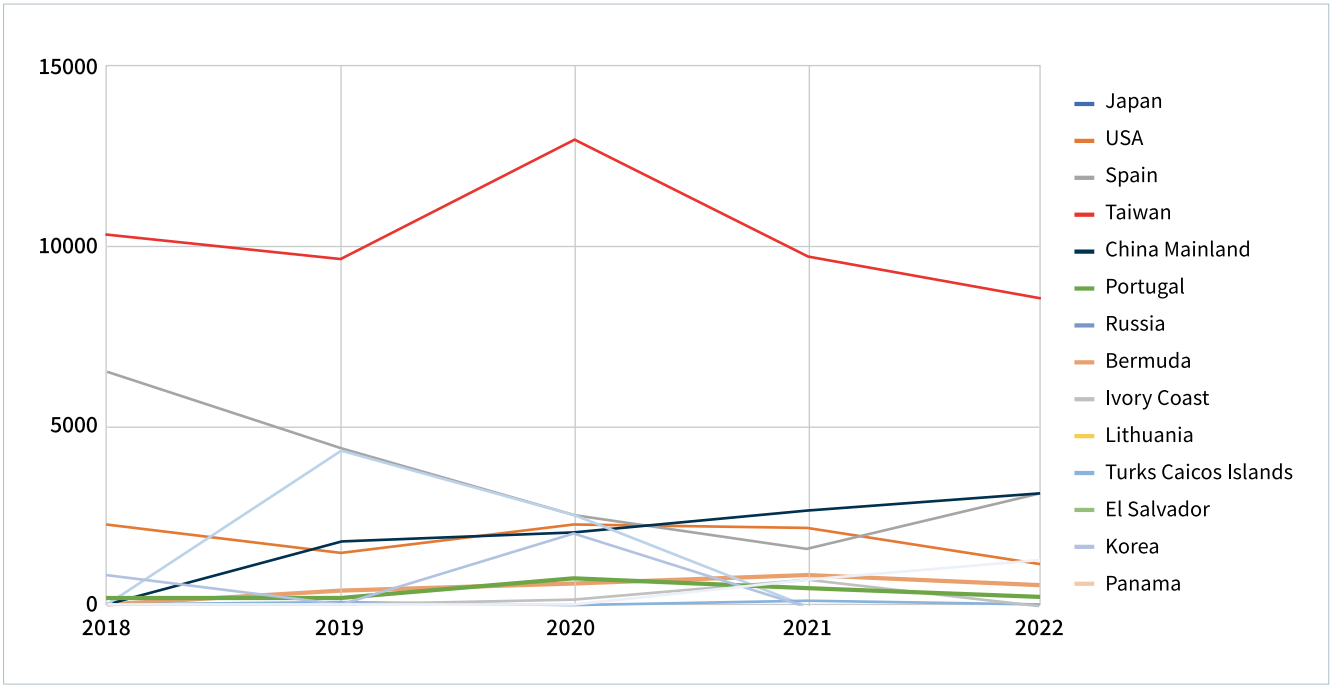
Greenpeace International's research shows the composition of the fleet from 2018 to 2022.



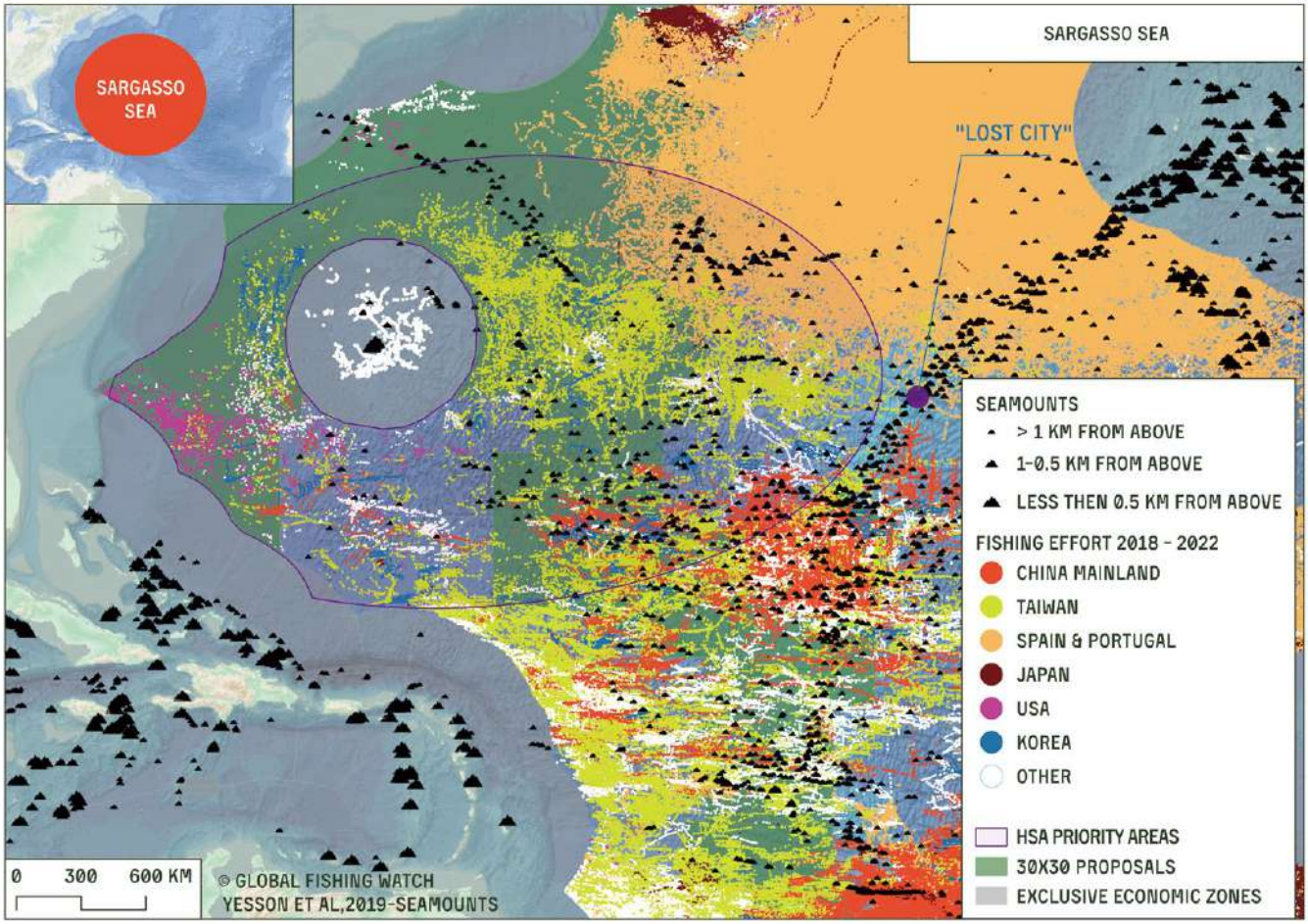
Total apparent fishing hours for Sargasso Sea



Fishing gear types in the Sargasso Sea



Total apparent fishing hours by flag in Sargasso



Fishing fleets by flag in the Sargasso Sea

- → 96.7% of fishing activity in 2018 - 2022 was conducted by drifting longlines
- → There was negligible trawler activity in 2018-2022 amounting to only 0.3% of fishing activity
- → Consistent with apparent overall high seas fishing activity, total hours declined in 2021, but continued falling into in 2022 instead of rebounding
- → The main fishing flags were Taiwan (48.2%), Spain (17.1%), China Mainland (9.1%) and USA (8.8%). Korean flagged vessels made up 2.7% of the fishing activity over this 5 year period – but this was mostly in 2020 (1,992 hrs), and a little in 2018 (844 hrs)

POLLUTION

The same gyre that defines the Sargasso Sea and helps create the Sargasso's unique ecosystem also traps plastics and other pollution, which adversely affect the eels, fish, turtles and other creatures living there.

The Sea Education Association (WHOI) researches the plastic pollution in the Sargasso Sea, using trawls to collect data. Preliminary examination suggests much of this debris is likely to be waste from ships and constitutes a failure to comply with the International Convention for the Prevention of Pollution from Ships (MARPOL), rather than coming from land-based sources.[160]

Greenpeace International's 2019 research shows that microplastic levels in the Sargasso Sea are comparable to the Great Pacific Garbage Patch.[161]

Fish and plastic debris in the Sargasso Sea.

CLIMATE AND ENVIRONMENTAL CHANGES

In the decade since the scientific case for protecting the Sargasso Sea was set out, various biogeochemical and oceanographic changes have been documented. The Sargasso Sea is one of the best-studied and most well-characterised regions of the global ocean. Analysis of data collected over a 40-year period from the 1980s show a marked acceleration in changes to temperature, salinity, oxygen levels and acidity.[162] It is possible that these changes could have a cascade effect on the Sargasso Sea ecosystem.[163]

SHIPPING

Numbers of commercial vessels significantly increased through the Sargasso Sea in the past decade, perhaps due to increased capacity in the Panama Canal.[164]
Ship-related impacts may include pollution from discharges, introduction of alien species through ballast water, underwater noise, collisions with whales, and physical damage to Sargassum mats

SARGASSUM SEAWEED ISSUES

Historically, those advocating for protection of the Sargasso Sea highlighted the potential future overharvesting of Sargassum. More recently, there is concern that the natural ecosystem of Sargassum fluitans and Sargassum natans I is being negatively impacted by Sargassum natans VIII.[165]

This invasive species is flourishing further south throughout the Great Atlantic Sargassum Belt, due to inputs of nitrogen from natural and anthropogenic sources, including sewage. It has become a major threat for the Caribbean and the Gulf of Mexico coastlines.[166] Also notable is the growing interest for the potential of ocean afforestation, using the Great Atlantic Sargassum Belt, to mitigate climate change.[167, 168]

In short, the Sargassum plays a pivotal ecological role but changes are causing an ecological and economic crisis.

DEEP SEA MINING

A 2011 study on Sargasso Sea geological resources found some polymetallic sulphides and gas hydrates deposits, but these are not considered commercially significant. However, the International Seabed Authority's approval in 2018 for a 15-year exploratory deep sea mining contract for minerals is concerning. The mid-Atlantic Ridge exploration area is right next to the Sargasso Sea. Prevailing ocean currents means sediment plumes from exploratory mining might reach the Sargasso area.[169]

THE CASE FOR PROTECTION

The Sargasso Sea is a high priority for protection under the Global Ocean Treaty due to its biodiversity and the range of threats. Its importance for the fisheries-related economies of the wider Caribbean region 'cannot be over emphasized', according to a group of experts including Sylvia Earle.[170]
In 2012, the Sargasso Sea was "described" by the parties to the CBD as an EBSA, after it met all seven EBSA criteria and scored high on six.[171] The Sargasso EBSA covered the whole two million square mile core area, making it the largest High Seas EBSA at that time.
The IUCN included the Sargasso Sea on its original High Seas gems list in 2008. Mission Blue championed its protection since 2011 and the area is one of the organisation's 'Hope Spots.'[172, 173] Since then, many other organisations have actively campaigned for its protection, including Greenpeace and the High Seas Alliance.
Finally, the Sargasso Sea is also one of five sites that might meet 'outstanding universal value' criteria. This is required by the World Heritage Convention to get on the list of World Heritage sites, should the Convention Parties adopt a procedure for nominating areas in ABNJ.[174, 175]

Actress and activist Shailene Woodley with Greenpeace in the Sargasso Sea.

Sargasso Sea Alliance

Due to the pioneering work that led to the Sargasso Sea Alliance, creating a MPA in this area is the most politically mature of all three case studies.

The Sargasso Sea Alliance was spearheaded by the Government of Bermuda, a UK Overseas Territory, together with NOAA's National Marine Sanctuaries Program, the International Union for the Conservation of Nature (IUCN), Center for Ocean Solutions at Stanford University, and NGOs like Mission Blue/Sylvia Earle Alliance and Marine Conservation Institute (MCI)[176]

The Sargasso Sea Alliance made a strong biological case for protection and highlighted the complex and inadequate governance in place. Their efforts led to the signing of the 'Hamilton Declaration on Collaboration for the Conservation of the Sargasso Sea' and the Sargasso Sea Commission in 2014.[177]

Governments signed to the Hamilton Declaration	
Year	**Government**
2014	Government of Bermuda
2014	Azores
2014	Monaco
2014	United Kingdom
2014	United States of America
2016	Government of the British Virgin Islands
2016	Bahamas
2016	Canada
2017	Cayman Islands
2018	Dominican Republic

The Commission acts as "a steward" of this extraordinary part of the ocean, to 'keep its health, productivity and resilience under continual review.' The political declaration is a non-binding agreement, where signatories agree to promote the conservation of the Sargasso Sea. This includes through interactions with other regional bodies, such as regional fisheries management organisations (RFMOs) and sectoral organisations. The Sargasso Sea Commission is composed of 'distinguished scientists and other persons of international repute committed to the conservation of High Seas ecosystems who serve in their personal capacity and are appointed by the Government of Bermuda'.

How the Sargasso Sea Commission works with existing regulatory bodies

As with most ABNJ, Sargasso Sea governance is fragmented and partial.

Since its inception, the Sargasso Sea Commission has exerted influence where it can, by proactively reaching out to various bodies responsible for different sectoral interests and engaging with a wide range of stakeholders.

Memorandums of understanding (MOUs) are a key tool in this soft diplomacy. Signing MOUs help with greater cooperation and formal recognition of the Sargasso Sea Commission's role.

A key part of the work to protect the Sargasso Sea has been conducted through engagement with the two key RFMOs which regulate fishing in the area.

The Northwest Atlantic Fisheries Organisation (NAFO) RFMO which applies to most fishery resources of the Northwest Atlantic, except salmon, tunas/marlins, whales and sedentary species such as shellfish.[178] It covers some fishing on the seamounts in the northern Sargasso Sea .

The International Commission for the Conservation of Atlantic Tuna (ICCAT) RFMO is responsible for the conservation of tuna and tuna-like species (including oceanic, pelagic and highly migratory species of sharks) in the Atlantic Ocean including the Sargasso Sea. [179, 180] All other fishing activities in the High Seas area of the Northwest Atlantic are currently unregulated.

The damage caused to deep sea biodiversity by bottom fishing is well understood and has been globally recognised since 2006. [181] While NAFO has made some progress over the years, [182] a permanent ban on bottom fishing would better serve biodiversity than the current temporary and case-by-case approach.[183, 184] Since there is currently so little apparent trawling activity in the Sargasso Sea, a full ban should be politically feasible.

For many years now, the Sargasso Sea Commission has been engaging with ICCAT, encouraging ICCAT to use the Sargasso Sea ecosystem as a model for demonstrating the

implementation of an ecosystem-based fisheries management framework. At least 15 dedicated scientific papers have been presented to ICCAT's scientific body – the Standing Committee on Research and Statistics (SCRS) – on various elements of an effective ecosystem-based management approach, such as development of an ecosystem-based indicator report card and a proposed roadmap for implementation.[185, 186] However, progress is slow, with some members unwilling to apply a precautionary approach or even to adopt the SCRS recommendations. This lack of action, while longliners (targeting tuna, and tuna like species including swordfish, and endangered shark populations) make up the vast majority of the apparent fishing activity in the Sargasso Sea, underlines why the Treaty is a crucial tool for advancing protection in the region.

Current governance is not enough to fully protect the Sargasso area

Recognising the changes occurring in the Sargasso Sea due to climate, pollution, fisheries and shipping traffic, in 2018 the Sargasso Sea Commission proposed a project to the Global Environment Facility (GEF) entitled 'Strengthening the Stewardship of an Economically and Biologically Significant High Seas Area.'[187]

Another key project, known as SARGADOM, identifies the Sargasso Sea and the Costa Rica Thermal Dome – both EBSAs – as two remarkable High Seas ecosystems and aims to support the development of 'hybrid governance for those areas'.[188]

These efforts will have two key outputs: a socio-ecosystem diagnostic analysis (SEDA) and a Strategic Action Programme (SAP) for the Sargasso Sea's long-term management and conservation.[189]

Weaving into this next phase of work is a partnership between the Sargasso Sea Commission and NASA. The project is called COVERAGE – Sargasso Sea.[190] It aims to integrate all of the satellite observations – including wind, currents, sea surface temperature and salinity, chlorophyll, colour etc. – and create a visualisation tool to monitor conditions in the Sargasso Sea.

These projects show that considerable effort has gone into improving the conservation and governance of the Sargasso Sea for over 10 years. The Sargasso Sea Commission and its precursors have led these efforts. They have achieved considerably more than raising awareness for the special attributes of this High Seas area and the pressures it faces, showing the best available science can inform policy and improve governance.[191] They have also built an impressive suite of champions, which goes beyond the countries that have signed to the Hamilton Declaration and includes a range of partners.

However, the Commission's experience spotlights the faults of the partial and fractured High Seas governance regime. Specifically, while its predecessor the Sargasso Sea Alliance, was instrumental in having the Sargasso Sea described as an EBSA in 2012, the Commission has only managed to secure one legally binding measure through its efforts – the 2016 NAFO restrictions on midwater trawling, and no restrictions through ICCAT.[192]

Governments must seize the opportunity provided by the Global Ocean Treaty

The Sargasso Sea is changing and facing increasing threats. Our ever-improving understanding of its biodiversity shows how valuable this area is. The Global Ocean Treaty aims to address current governance gaps, and provides an opportunity to protect the area with the establishment of a High Seas ocean sanctuary. Given the efforts made so far, all countries signed to the Hamilton Declaration should grasp this opportunity, proving the value in collaboration and shared leadership.

Of the signatories, the UK is a well-placed champion. This is because of its High Ambition Coalition membership and relationship to the Government of Bermuda (a UK Overseas Territory). The UK should facilitate the development of a sanctuary proposal, and invest the political capital and diplomatic efforts required to build support from other members. They should then co-champion the proposal with Caribbean nations at the first Treaty COP.

SOUTH TASMAN SEA / LORD HOWE RISE

The South Tasman Sea and Lord Howe Rise are two linked sites in the South Pacific, located between Australia and New Zealand EEZs in an area sometimes called 'the Ditch'. They comprise a complex chain of seamounts leading to a vast plateau to the north.

These areas are dynamic and diverse. Their complex underlying topography is made up of expansive soft sediment basins and plateaus with raised scattered seamounts, guyots, knolls and pinnacles.
This area is characterised by a distinct thermal gradient, with northern waters 10oC warmer than southern waters.

BIODIVERSITY IN SOUTH TASMAN SEA / LORD HOWE RISE

The fringing coral reefs around Lord Howe Island and Elizabeth and Middleton reefs are the most southerly tropical coral reefs in the Pacific Ocean. They are home to a diverse range of tropical, sub-tropical and temperate marine species.[193, 194] These reef systems sit at the interface between warm tropical waters pushed south by the East Australian Current and cooler temperate waters. As a consequence, both warm water reef-building (hermatypic) and cool water non-reef-building (ahermatypic) corals are present, as are both tropical and warm temperate fish species.[195]

A 2011 paper on the biogeography of Lord Howe Rise notes how the raised bathymetric features mostly support richer and more abundant communities of cold-water corals and sponges (amongst other epifaunal suspension feeders) than the subdued bathymetric features (expansive soft sediment basins and plateaus) which provide habitat to acorn worms, sea pens and shrimps, and other animals, including various detritivores, living in the sediment.[196]

The productivity and ecology of the South Tasman Sea and Lord Howe Rise are dominated and driven by the East Australian Current, Tasman Front and the topography of the offshore seamounts. The dynamic oceanographic processes of the Tasman Front and eddy field interact with the seamounts, producing transient patches of enhanced productivity. These attract groups of species across the food chain, including top predators such as bigeye tuna, swordfish and sharks.[197]

Indicative of the richness of the biodiversity of Lord Howe Rise are the results of a survey of deep sea fish species, conducted in Lord Howe Rise, and Reinga Ridge and Norfolk Ridge to the north. The study revealed that the diversity of fish species in the Lord Howe Rise appears unusually high in global terms.[198] Of the 348 demersal fish species identified by the study, about one quarter were considered potentially new species. Many areas of the Lord Howe Rise remain unexplored, so are likely to reveal more undiscovered marine life.

The Tasman Sea and Lord Howe Rise boast some of the highest seabird densities in the world. The area is used year-round by breeding Antipodean albatross, providence petrel and white-winged petrel, as well as by juvenile wandering albatross, which are known to travel thousands of kilometres to feed here.[199] 50-65% of the world population of Gould's petrels visit in the breeding season.[200] In total, 14 of the albatrosses and six of the petrel species listed under the Agreement on the Conservation of Albatrosses and Petrels (ACAP) use the waters of the Tasman as an important foraging ground during the breeding cycle.[201]

The South Tasman Sea and Lord Howe Rise are known to be an important migratory pathway for many species, including humpback and southern right whales.[202] A satellite tracking study revealed the importance of seamounts to the migratory patterns of endangered South Pacific humpbacks. It shows that oceanic seamounts serve multiple and important roles as breeding locations, resting areas, navigational landmarks or even extra feeding grounds for this species.[203]

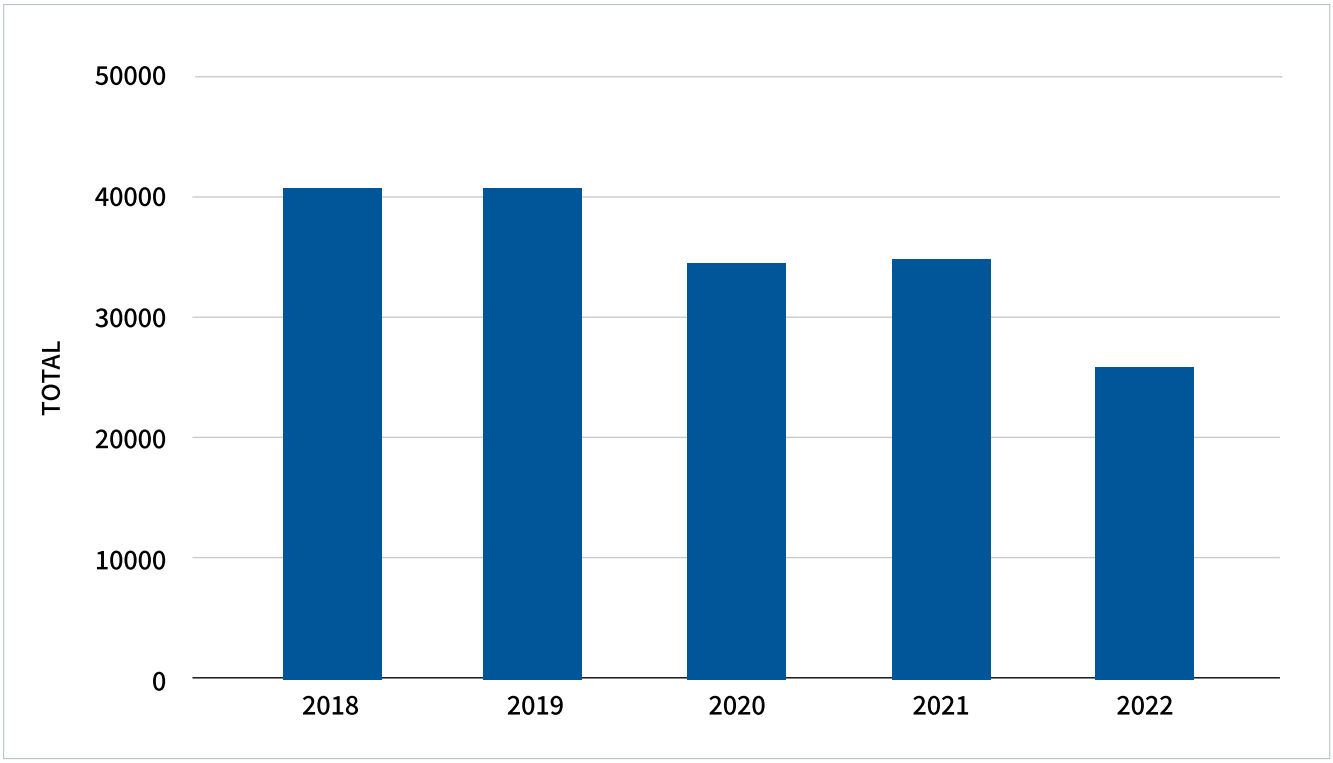
The high productivity and biodiversity, endemism and aggregations of marine life of the South Tasman Sea and Lord Howe Rise make it a prime area for protection.

PRESSURE FROM FISHERIES IN SOUTH TASMAN SEA AND LORD HOWE RISE

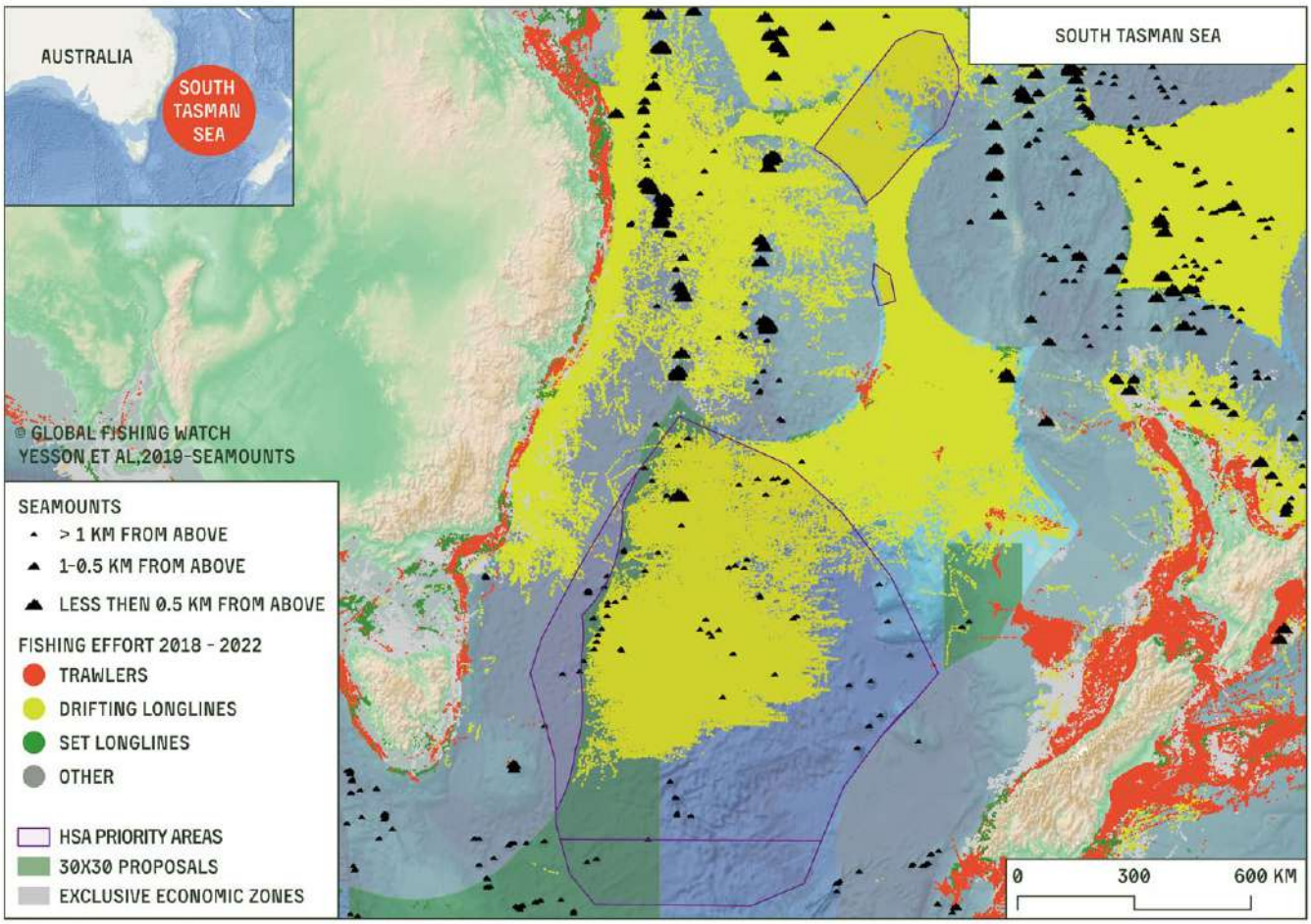
The productivity and rich biodiversity of the region have inevitably caught the attention of fishers. Vessels from various distant water fishing nations target high value pelagic species including southern bluefin tuna.[204] The main fishing gear employed is drifting longlines – a method of fishing that constitutes a major risk for conservation of albatrosses and petrels.[205] Antipodean, black-browed, Buller's and shy albatrosses are the most frequent victims in the Tasman Sea, with the highest numbers of breeding birds caught between September and April during the egg-laying and chick-rearing period.[206]

Commercial fishing for benthic and demersal species is restricted to a depth of about 1500 m. The main fish targeted commercially by bottom trawlers and bottom longliners include orange roughy, oreos, alfonsino and bluenose.

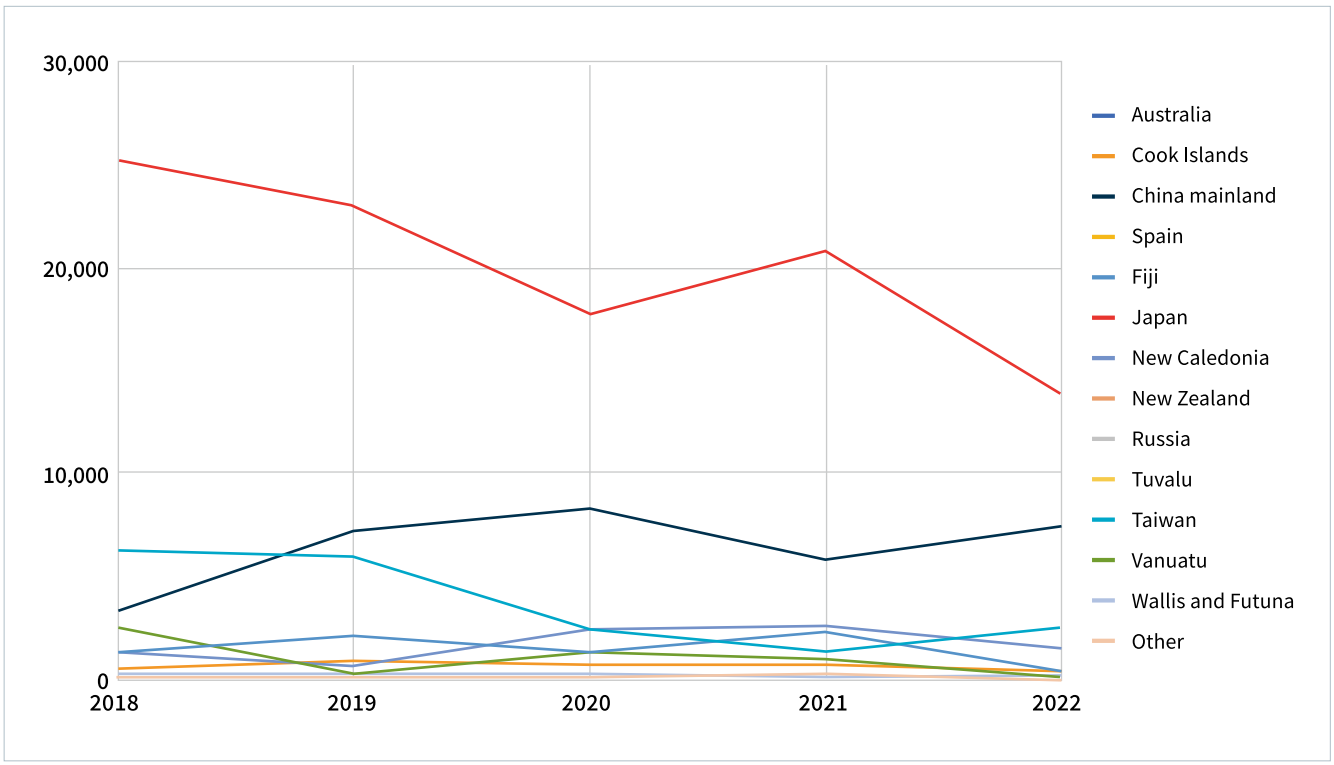
Since the 2000s, the number of vessels trawling in the area has diminished and now only a few New Zealand vessels are doing so. The catch in 2021 only amounted to 20 tonnes of orange roughy and 1 tonne of seal sharks.[207] [208] Unfortunately, in recent years, New Zealand flagged vessels have been found illegally fishing in a closed area and trawling through a vulnerable marine ecosystem – causing the destruction of ancient corals in international waters of the Tasman Sea that are managed under the South Pacific Regional Fisheries Management Organisation (SPRFMO).[209, 210]



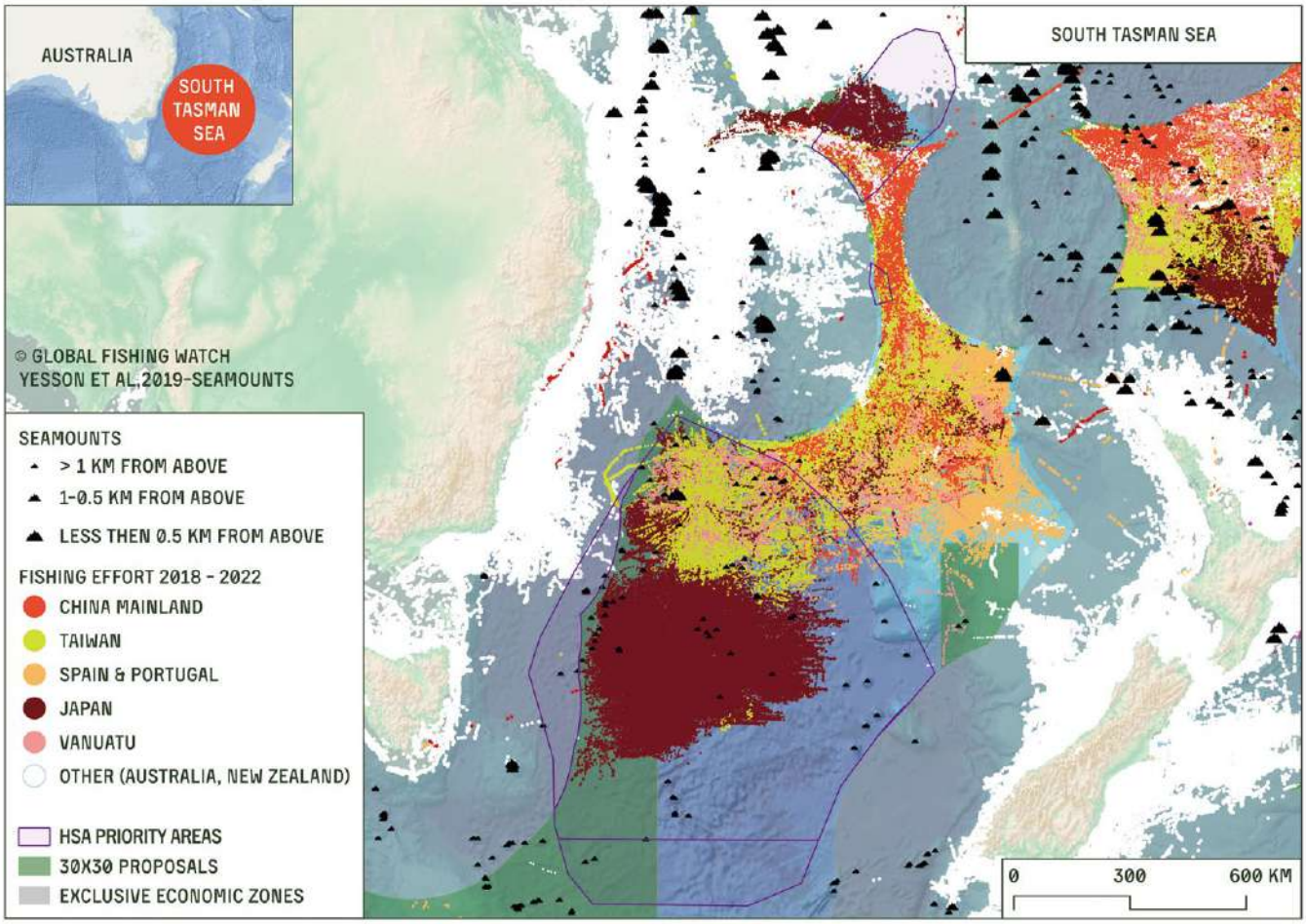
Total apparent fishing hours for Lord Howe Rise and South Tasman Sea



Fishing gear types in South Tasman Sea



Total apparent fishing hours by flag for Lord Howe Rise and South Tasman Sea



Fishing fleets by flag in South Tasman Sea

Fishing in both the Lord Howe Rise and the South Tasman Sea is once again almost exclusively conducted using longlines, representing 98.4% of recorded fishing hours for the years 2018 to 2022.

Japanese vessels account for just over half (56.8%) of the apparent fishing activity taking place in the South Tasman Sea and Lord Howe Rise. China Mainland vessels are responsible for the next biggest apparent fishing activity (18.1%), followed by New Caledonia (4.8%) and Fiji (4.1%).

Apparent trawling was minimal with only 4.8 hours of total effort in the South Tasman Sea and Lord Howe Rise split across 2018, 2020 and 2021.

POLLUTION

Plastic pollution is pervasive and found throughout the ocean, with fishing gear being a major source.[211] This plastic pollution can travel huge distances, as evidenced by the large quantities of New Zealand company-branded plastic fishing waste found on the remote Henderson Island, located 5,000 kilometres from New Zealand.[212]

Research published in 2015 shows that impacts to seabirds are expected to be highest in the Tasman Sea, between Australia and New Zealand.[213] The researchers predict plastic ingestion is increasing in seabirds and will reach 99% of all species by 2050, but effective waste management can reduce this threat.

CLIMATE CHANGE

The Tasman Sea has experienced much higher warming rates than the global average over the last several decades. In recent years it has experienced a succession of large-scale marine heatwaves. The marine heatwave in the southern summer of 2017/2018 lasted three months and caused severe ecological impacts, including increased 'tropicalisation', with the appearance of fish species typically found further north.[214] The Tasman Sea is a global hotspot for ocean warming, with sea temperatures rising faster than the global average rate.[215]

This, and the possibility of even more frequent marine heatwaves, must be taken into account when considering future management of this key area for marine life.

THE CASE FOR PROTECTION

The South Tasman Sea and Lord Howe Rise have been on the radar of those advocating for High Seas protection for many years. They are usually considered together, though IUCN singled out the Lord Howe Rise for its original list of High Seas Gems in 2008.[216]

The CBD recognised two separate EBSAs: the South Tasman Sea EBSA and the Northern Lord Howe Ridge Petrel Foraging Area. The former scored high on 4 of the 7 EBSA criteria.[217,218]

Other international NGOs expressing a special interest in creating a South Tasman Sea/Lord Howe Rise protected area include Mission Blue, Pew and the High Seas Alliance (HSA).[219,220]

The value of the South Tasman Sea and Lord Howe Rise to globally-important seabirds, many endangered or vulnerable, has resulted in Birdlife International identifying five important Bird and Biodiversity Areas (IBAs) in the area. They are actively campaigning for area protection in the region.[221]

The threats from unsustainable fisheries combined with rapid warming in the region, demand that measures are put in place to build resilience in the marine ecosystems of the South Tasman Sea and Lord Howe Rise.

While all seamounts should be immediately closed to bottom fishing to prevent further impacts and allow for recovery, the presence of two seamounts in the north-west of the South Tasman Sea make a compelling case for urgent protection. These seamounts have not been impacted by deepwater trawling, but have been categorised as high risk due to the likelihood of deep-water coral communities being present.[222]

As with the Emperor Seamounts, it is important to protect impacted habitats as well as untouched ones. While recovery of deep sea corals may take decades, recolonisation and regrowth does occur, as shown by a 2022 study on the Chatham Rise and Graveyard Knolls.[223] Protecting impacted areas will help improve connectivity and build resilience in the face of environmental change.

Trawl net in the Tasman Sea

© Greenpeace / Simon Murtagh

Bottom Trawling Protest Flotilla in Mission Bay, Auckland

CHAMPIONING PROTECTION

Given the location of the South Tasman Sea and Lord Howe Rise, any future ocean sanctuary needs the support of both Australia and New Zealand working together.

Both countries have signalled their support for the Global Ocean Treaty by joining the High Ambition Coalition on Biodiversity Beyond National Jurisdiction.[224]

Australia has been more proactive in its support for the global ocean protection agenda and signed onto the UK-led Global Ocean Alliance in support of the 30x30 target.[225] The Australian Government's June 2023 announcement is a welcome demonstration of walking the talk. They plan to triple the size of the Macquarie Island Marine Park (located off Australia's southeastern coast between Tasmania and Antarctica) and close off an area larger than Germany to fishing and mining.[226] New Zealand's reluctance to go that step further may be ascribed to the strong influence of the fishing industry over the New Zealand government – with fishing companies enjoying a close relationship with the Government's Ministry for Primary Industries.[227, 228]

This existing political will needs to be cultivated. Both countries should step up and show global political leadership on ocean protection.

Australia has implemented MPAs (the Lord Howe and Gifford protected areas) in its EEZ, including areas close to the proposed South Tasman Sea and Lord Howe Rise protected area.[229, 230] Connectivity between MPAs is key for helping areas meet conservation objectives, so a new High Seas protected area would benefit Australia's national network.

Public support for ocean protection is widespread in both countries, as shown by public opinion polls – such as the Australia Institute's 2021 poll on the attitude of Tasmanians to ocean protection and Greenpeace Aotearoa's 2022 poll, which highlighted overwhelming support in New Zealand for a ban on bottom trawling on seamounts.[231, 232] However, such support cannot be taken for granted. Crucial to the success of any MPA proposal is a transparent process, with full engagement of all relevant stakeholders.[233]

Protection for seabirds

Albatrosses and petrels make use of the High Seas, and the South Tasman Sea and Lord Howe Rise are globally significant to seabird biodiversity and the threats they face.

As such, Birdlife International is actively working to increase protection through relevant international bodies.[234] As well as identifying the Tasman Sea as an IBA, BirdLife makes the case for protection through various bodies including the Agreement on the Conservation of Albatrosses and Petrels (ACAP) Working Groups and Advisory Committee, and the relevant RFMOs – the Western & Central Pacific Fisheries Commission (WCPFC) and the Commission for the Conservation of Southern Bluefin Tuna (CCSBT).[235, 236, 237]

Any protection measures that can be secured through these bodies can be integrated into the development of a proposal for a High Seas protected area in the region.

Progressing protection for the South Tasman Sea and Lord Howe Rise is a logical next step towards a High Seas MPA network, which will benefit a significant proportion of the world's albatrosses and petrels.

Working to end fishing threats

As with the Emperor Seamounts, an impactful first step to increasing protection for the South Tasman Sea and Lord Howe Rise is to stop bottom trawling and other harmful industrial fishing activities, such as drifting long lines that represent 98.4% of apparent fishing hours.

The South Pacific Regional Fisheries Management Organisation (SPRFMO) is the RFMO with responsibility for regulating non-tuna fisheries on the High Seas of the South Pacific. It has oversight of jack mackerel and jumbo flying squid in the Southeast Pacific, and deep sea bottom fisheries in the Southwest Pacific seamounts, including the South Tasman Sea and Lord Howe Rise. With a combination of domestic pressure in New Zealand and international pressure through the SPRFMO, bottom trawling in the South Tasman Sea and Lord Howe Rise could stop. Since New Zealand is the sole country still bottom trawling in the area – with only a single vessel active in 2021 – this should be possible.

New Zealand deep sea fishing companies (Talley's and its subsidiary Amaltal, plus Sanford and Sealord) exert strong power over the New Zealand Government.[238] Meanwhile, various New Zealand NGOs – including LegaSea, ECO, Forest

and Bird, Our Seas Our Future and WWF New Zealand – along with Greenpeace Aotearoa and the Deep Sea Conservation Coalition (DSCC) have actively opposed High Seas permits granted to New Zealand bottom trawlers.[239, 240]

Internationally, while the SPRFMO has identified multiple vulnerable marine ecosystems (VMEs) for the predicted presence of both octocorals and hard corals (and other VME indicator species) at fishable depths within its jurisdiction, it still hasn't banned bottom trawling despite the clear ecological justification for a ban. In fact, new rules proposed by New Zealand and adopted by the SPRFMO in 2023, mandate protecting a minimum of 70% of VME-indicator species, or groups of species, introducing such a threshold for the first time.[241, 242] The arbitrary nature of the 70% threshold, and the impossibility of determining the total number and extent of VME habitats, means the rules have come under fierce criticism from the DSCC, which has been active in the SPRFMO since its inception.[243]

There has been little progress in introducing effective conservation measures in the SPRFMO to date. However, the Global Ocean Treaty and 30x30 protection target change the overarching framework that the RFMOs and other bodies concerned with High Seas governance operate – elevating the obligations of states to protect the marine biodiversity of the High Seas.

GOVERNMENTS ADJACENT TO THE AREAS MUST STEP UP FOR THEIR PROTECTION

The Global Ocean Treaty has the potential to transform the situation facing the special and vulnerable ecosystems of the South Tasman Sea/Lord Howe Rise and in the South Pacific. All of the relevant RFMOs have been slow to act and afford them the protection they deserve. States should use the full extent of the Treaty's powers to provide protection where existing bodies have repeatedly failed.

We are only just beginning to understand the underwater 'volcanic lost world' of the South Tasman Sea and Lord Howe Rise, an area home to a vast array of species and habitats. Consistently identified as a High Seas region warranting protection, increasing temperatures combined with other human pressures necessitate a comprehensive suite of protection measures beyond limited closures.

Australia and New Zealand, as the adjacent countries to the South Tasman Sea and Lord Howe Rise, need to partner up. They should step forward as champions for its protection and as world leaders in ocean stewardship.

Lord Howe Rise Island

RECOMMENDATIONS

The Global Ocean Treaty is a powerful tool. Once implemented, governments can use it to establish ocean sanctuaries on the High Seas, covering at least 30% of the ocean. But time is running out to meet the 30x30 goal and ocean threats are multiplying. States must capitalise on the growing momentum for ocean protection and act with haste.

- At least 60 countries must sign when the Global Ocean Treaty opens for signatures at the United Nations General Assembly on the 20th September 2023. Although non-binding, a signature sends a strong signal of intent to ratify and demonstrates determination to see the Treaty enter into force.
- At least 60 countries must ratify the Treaty so it enters into force by the UN Oceans Conference in June 2025 and the Agreement becomes an international law. Governments must continue to prioritise ocean protection by ratifying rapidly. They cannot be allowed to sit back now the Treaty has been adopted; civil society must continue to hold politicians to account.
- The United Nations must set up a Preparatory Commission by the end of 2023. A number of key decisions, including rules of procedure, financial regulations and size, terms of reference and modalities of subsidiary bodies must be made at the first BBNJ COP. Without preparatory work in advance, such as early drafts and consultations, a lot of time will likely be wasted at the first, and potentially following COPs. This would delay full implementation of the Treaty, establishment of MPAs and ultimately progress towards the 30x30 goal. A Preparatory Commission can do this work to ensure the first COP can hit the ground running.
- The Preparatory Commission must set up a CBTT working group, to assess national and regional capacity needs and priorities. This will help ensure the agreement delivers on promised support for developing countries, through capacity building and the transfer of marine technology. This is vital for equitable implementation of the Treaty, and will empower all states to realise their rights and develop, implement, monitor and manage future High Seas MPAs.
- A financial mechanism must be set up to facilitate successful implementation of the Treaty. Without sufficient funding, the Treaty COP cannot successfully function. The Preparatory Commission should set up a working group on finance to begin securing funding.[244]
- States, regional groups and other institutions must mobilise funding to facilitate successful implementation of the Treaty. The European Union's Global Ocean Programme commitment of 40 million € must be followed by similar pledges from others.
- States must begin formulating High Seas MPA proposals, so that at least 3 proposals are submitted at the first BBNJ COP. Champion governments need to begin writing proposals, building political support and consulting stakeholders as soon as possible taking a 'twin track' approach alongside ratification. They cannot afford to delay this work until the Treaty has entered into force, otherwise the first COP cannot advance protection and the 30x30 goal risks being missed. Civil society has a critical role to play in keeping political ambition high, using multiple levers from supporting research through to mobilising public support
- States must introduce a moratorium on deep sea mining. Deep sea mining is incompatible with a sustainable future. To prevent the unavoidable and irreversible harm that deep sea mining would cause, governments should ensure that deep sea mining does not start anywhere across the global oceans – including outside of ocean sanctuaries. To do this, alongside ratifying the Global Ocean Treaty, governments should work together at the International Seabed Authority Assembly to pass a general policy on a moratorium. As of August 2023, over 20 governments from the Pacific, Latin America and Europe support introducing a moratorium or a precautionary pause on deep sea mining and are actively coordinating to achieve this at the International Seabed Authority in the coming years.

Galapagos Sea Lion hunting fish, Galapagos Islands, Ecuador

© Mouhamadou Thioune / Greenpeace

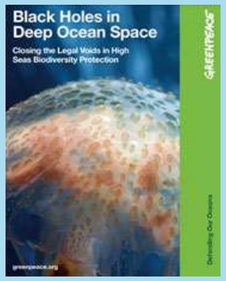
During World Ocean Day, Senegalese fishermen hold banners and placards demanding action on the fishmeal and fish oil industry.

GREENPEACE'S INVOLVEMENT

Greenpeace has been actively involved in the Treaty process since the beginning. Through science work, ship work, non-violent direct actions, art, people power and partnership with major influencers, Greenpeace advocated from the start to address the escalating ocean crisis in a holistic way, by protecting marine ecosystems from a range of threats.

2005-2019

Over the years, Greenpeace International published a series of five reports setting out the threats facing the High Seas, exposing the gaps and failings of the global ocean governance and campaigning for the establishment of a network of ocean sanctuaries.



2016

Acclaimed Italian composer and pianist Ludovico Einaudi performs one of his own compositions on a floating platform in the Arctic Ocean, calling for Arctic protection.

© Pedro Armestre / Greenpeace

2018

Actor and Arctic ambassador Javier Bardem and submarine pilot John Hocevar during an Antarctic expedition to carry out scientific research and highlight the urgent need for an Antarctic Ocean Sanctuary.

© Christian Åslund / Greenpeace

2019

Over the years, Greenpeace International published a series of five reports setting out the threats facing the High Seas, exposing the gaps and failings of the global ocean governance and campaigning for the establishment of a network of ocean sanctuaries.

© Shane Gross / Greenpeace

2020

"Turtle Journey", produced with renowned animation studio Aardman, highlights the plight of the world's oceans through the heartbreaking story of a turtle family heading home in an ever more threatened ocean.

© Greenpeace

In 2020 and 2022, Greenpeace International and Stony Brook University in New York conducted groundbreaking research on remote penguin colonies in Antarctica – many never surveyed before – to study the impact of climate change on these fragile species.

© Tommy Trenchard / Greenpeace

Environmental activist Mya-Rose Craig poses on an ice floe in the Arctic as part of the most northerly climate strike at 82.2° North. A Greenpeace team was in the Arctic to document the impact of the climate crisis and investigate marine life in the region.

© Daniella Zalcman / Greenpeace

2021

Marine scientists Dr Kirsten Thompson and Shaama Sandoo-yea during an expedition to the Saya de Malha Bank, to contribute to a better understanding of the biodiversity of the region and make the case for protecting this area.

© Tommy Trenchard / Greenpeace

Fijian activist Victor Pickering in front of a ship chartered by one of the companies spearheading deep sea mining.

© Pedro Armestre / Greenpeace

2022

Marine scientists Dr Kirsten Thompson and Shaama Sandoo-yea during an expedition to the Saya de Malha Bank, to contribute to a better understanding of the biodiversity of the region and make the case for protecting this area.

© Pedro Armestre / Greenpeace

Greenpeace activists on board the Arctic Sunrise document squid jiggers in the Blue Hole (Argentina Sea), detecting over 500 trawlers and jiggers plundering this area of the Southwest Atlantic.

© Tommy Trenchard / Greenpeace

Greenpeace UK and Greenpeace España activists free a Mako shark from a longline in the North Atlantic, where Greenpeace exposes the destructive EU fishing fleets from Spain and Portugal, who rely on shark bycatch to remain profitable.

© Greenpeace

Greenpeace activists on board the Arctic Sunrise document squid jiggers in the Blue Hole (Argentina Sea), detecting over 500 trawlers and jiggers plundering this area of the Southwest Atlantic.

© Sungwoo Lee / Greenpeace

2023

Ahead of the resumed IGC5, Greenpeace organisations around the world (here in Mexico) project videos on iconic buildings, demanding their governments to push towards the Global Ocean Treaty.

© Greenpeace

Greenpeace volunteers around the world (here in Sweden) take part in a global day of action calling on world leaders to agree to a strong Global Ocean Treaty during the resumed IGC5 negotiations.

© Ella Rudberg / Greenpeace

Actress Jane Fonda and Senegalese community leader Anta Diouf deliver a 5.5 million signature petition demanding a strong Global Ocean Treaty to Rena Lee, president of the UN negotiations, at resumed IGC5.

© Stephanie Keith / Greenpeace

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GREENPEACE
PROTECT
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30X30:

FROM GLOBAL OCEAN TREATY TO PROTECTION AT SEA

The High Seas cover 61% of the world's oceans and occupy 70% of the living space on our planet, including land and sea. These international waters are home to a stunning wealth of marine life and ecosystems. They are crucial to many of the key processes that sustain life on our blue planet, including mitigating climate change.

But in recent decades life in the High Seas has dwindled under the rising impact of multiple human stresses, prompting the United Nations to begin a process to reform management in international waters. In March 2023, history was made when the UN finally agreed on a new Global Ocean Treaty. This Treaty is a powerful tool that can help protect at least 30% of the oceans by 2030.

Time is running out, and reaching this target will require a strong and urgent political response. This report offers clear routes toaction to get across the finishing line and help the oceans thrive again.

PUBLISHED BY GREENPEACE INTERNATIONAL - SEPTEMBER 2023