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# Guide to Marine Protected Areas (MPAs)

This guide looks at Marine Protected Areas globally, with particular reference to the Northeast Atlantic and UK waters

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## Summary

This Guide discusses the definitions of Marine Protected Areas (MPAs) in the context of nature conservation and fisheries management. MPAs are often designated primarily for nature conservation purposes, but they can be used as a fisheries management tool, and this is important in the 'Ecosystem Approach to Fisheries (EAF)' where a broad range of stakeholders' objectives and sources of information are included in the management approach. This Guide outlines the global, regional and national approaches to the designation and management of MPAs designated for marine nature conservation purposes.

The primary objectives of marine nature conservation MPAs are centred on the conservation and/or recovery of marine biodiversity, focussed on permanent geographic features, habitats and/or protection of particular species. Management measures range from highly restrictive 'Highly Protected Marine Areas' (HPMAs) sometimes referred to as 'No Take Zones', to areas where multiple-uses of the marine environment are managed in relation to the area's designated nature conservation objectives. The latter is the approach adopted within UK and European waters. Dependent on the legislation, social and economic factors may also have a role in the designation and management of these MPAs.

The legislative drivers are outlined at a global, regional and national level. In the UK, MPA assessment and management is mostly carried out by the four national devolved administrations. Scientific oversight is provided by the Joint Nature Conservation Committee (JNCC), a government body charged with delivering scientific advice on nature conservation in the UK.

The process used to assess and manage the nature conservation MPAs is based on protection of the features for which the MPA is designated. This means that there is a process whereby risks from the various activities, including fishing, are assessed in relation to the conservation objectives of the area under protection. The management of all activities inside a given MPA requires a wide range of information to be considered from a diverse group of stakeholder interests.

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## Glossary of Acronyms

Term	Definition
AFBI	Agri-Food and Biosciences Institute, Northern Ireland
ASSI	Areas of Special Scientific Interest in Northern Ireland, with marine components normally to MLW
CBD	Convention on Biodiversity: signed at the 1992 Rio Earth Summit
DAERA	Department of Agriculture, Environment and Rural Affairs: Northern Ireland government
EAF	Ecosystem Approach to Fisheries
EBSA	Ecologically or Biologically Significant Marine Areas as designated through the CBD
EEZ	Exclusive Economic Zone: area between coast and the 200-mile limits or the median line between jurisdictions where States have rights to exploit marine resources including fish stocks
EMFG	Environment, Marine and Fisheries Group of DAERA
EMS	European Marine Sites: sites designated under the European Habitats (SACs) and Birds (SPAs) Directives through the Bern convention. After UK Exit from the EU, the commitments of the Bern Convention apply directly to the UK as a signatory
FAO	Food and Agriculture Organization of the United Nations
HAT	Highest Astronomical Tide
HPMA	Highly Protected Marine Area
IFCA	Inshore Fisheries and Conservation Authorities; local authority bodies responsible for fisheries management and conservation within the 6 mile limit in English waters
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee; government body charged with providing scientific advice on nature conservation in the UK
LAT	Lowest Astronomical Tide
MCZ	Marine Conservation Zone; UK national MPA network designed to help fulfil the UK's commitment under OSPAR known as NCMPAs in Scotland
MLW	Mean Low Water
MLWS	Mean Low Water Springs
MPA	Marine Protected Area
MMO	Marine Management Organisation: executive non-departmental public body responsible for management of fisheries in English waters
MSFD	Marine Strategy Framework Directive: EU Directive (2008/56/EC) establishing a framework for community action in the field of marine environmental policy
NCMPA	Nature Conservation Marine Protected Area: equivalent of MCZ in Scotland
Nature Scot	Formally Scottish Natural Heritage: statutory nature conservation body for Scotland
NEAFC	North-East Atlantic Fisheries Commission: RFMO for the North-East Atlantic
NE	Natural England: statutory nature conservation body for England
NIEA	Northern Ireland Environment Agency
NRW	Natural Resources Wales: statutory nature conservation body for Wales
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
RFMO	Regional Fishery Management Organisation: international organisations through which States co-operate on fishery management
SAC	Special Area of Conservation under the EU Habitats Directive (92/43/EEC); see EMS above

Term	Definition
SNCB	Statutory Nature Conservation Body: government bodies responsible for policy making and the administration and regulation of nature conservation and wildlife protection
SPA	Special Protection Area under the EU Birds Directive (2009/147/EC); EMS above
SSSI	Sites of Special Scientific Interest: designated under the Wildlife and Countryside Act
UNCLOS	United Nations Convention on the Law of the Sea; defines the rights and responsibilities of nations with respect to their use of the world's oceans
VME	Vulnerable Marine Ecosystem: groups of species, communities or habitats that may be vulnerable to impacts from fishing activities

## 1 Definitions

There is no single internationally accepted definition of a Marine Protected Area (MPA). The International Union for Conservation of Nature's<sup>1</sup> guidelines (Dudley, 2008) defines all protected areas, both terrestrial and marine, as:

*“A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values”.*

This definition relates primarily to nature conservation which is an important motivation for implementation of most MPAs in the UK and Europe. However, Europe also has a long history of spatial management of fisheries, including spatial restriction of access to vessels of certain sizes, and measures aimed at protection of juveniles and spawning stocks. The Food and Agriculture Organization of the United Nations (FAO<sup>2</sup>) technical guidelines for Responsible Fisheries ([FAO, 2011](#)) has a broader definition of an MPA as:

*“... any marine geographical area that is afforded greater protection than the surrounding waters for biodiversity, conservation, or fisheries management purposes”.*

The extent of the synergy between nature conservation and fisheries management in relation to MPAs has been the subject of much discussion in the scientific and policy literature. The FAO technical guidelines discuss the use of MPAs in the context of a move towards an 'Ecosystem Approach to Fisheries' (EAF), where a broad range of stakeholders, objectives and sources of information are included in the management approach. In a fisheries context, MPAs are only one of a suite of management measures. These include such fisheries' management measures as fishing gear, catch and effort controls.

Demonstrating fisheries' benefits of MPAs can be difficult. The examples where benefits have been demonstrated are often associated with relatively sedentary species, for example scallops, as reviewed in AFBI<sup>3</sup> (2020). The length of time an MPA has been protected has been found to be of significance, with [Molloy et al, \(2009\)](#) recommending that protection should be maintained for a minimum of 15 years; even if the initial results indicate that there has been no improvement in the protected populations.

The primary objectives of marine nature conservation MPAs, as distinct from MPAs designated for fisheries management purposes, relate to the conservation and/or recovery of marine biodiversity. They are usually designated around permanent geographic features and/or to protect particular habitats or species. The management measures range from highly restrictive Highly Protected Marine Areas (HPMAs) ([Benyon, 2020](#)) sometimes referred to as 'No Take Zones', where there are no extractive uses or other activities permitted. Under UK and European legislation, MPA management has instead focused on multiple uses of the marine environment within the designated area, whilst achieving specified conservation objectives for that protected area.

The purpose of this Guide is to inform the process by which MPAs, designated primarily for nature conservation, are being introduced.

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<sup>1</sup> IUCN: [www.iucn.org](http://www.iucn.org)

<sup>2</sup> FAO: <http://www.fao.org/home/en/>

<sup>3</sup> AFBI: Agri-Food and Biosciences Institute, Northern Ireland

## 2 Legislative and policy drivers

Legislative and policy drivers operate at global, regional and national levels.

### 2.1 Global

#### 2.1.1 Ecologically or Biologically Significant Marine Areas (EBSAs)

Ecologically or Biologically Significant Marine Areas (EBSAs; Figure 1) are derived from the Rio 'Earth Summit' in 1992 and designated through the Convention on Biodiversity (CBD).

*“The EBSAs are special areas in the ocean that serve important purposes, in one way or another, to support the healthy functioning of oceans and the many services that it provides.”* [\(CBD, 2020\)](#)

EBSAs are identified by a set of [scientific criteria](#) (CBD, 2009) and the selection of conservation and management measures is a matter for States, and legally competent intergovernmental organisations, in accordance with international law, including the UN Convention on the Law of the Sea ([UNCLOS](#)). For further details see the [Convention on Biodiversity website](#) (CBD, 2020). For the Northeast Atlantic region, this is being progressed through OSPAR<sup>4</sup> (see page 10 and Figure 3).

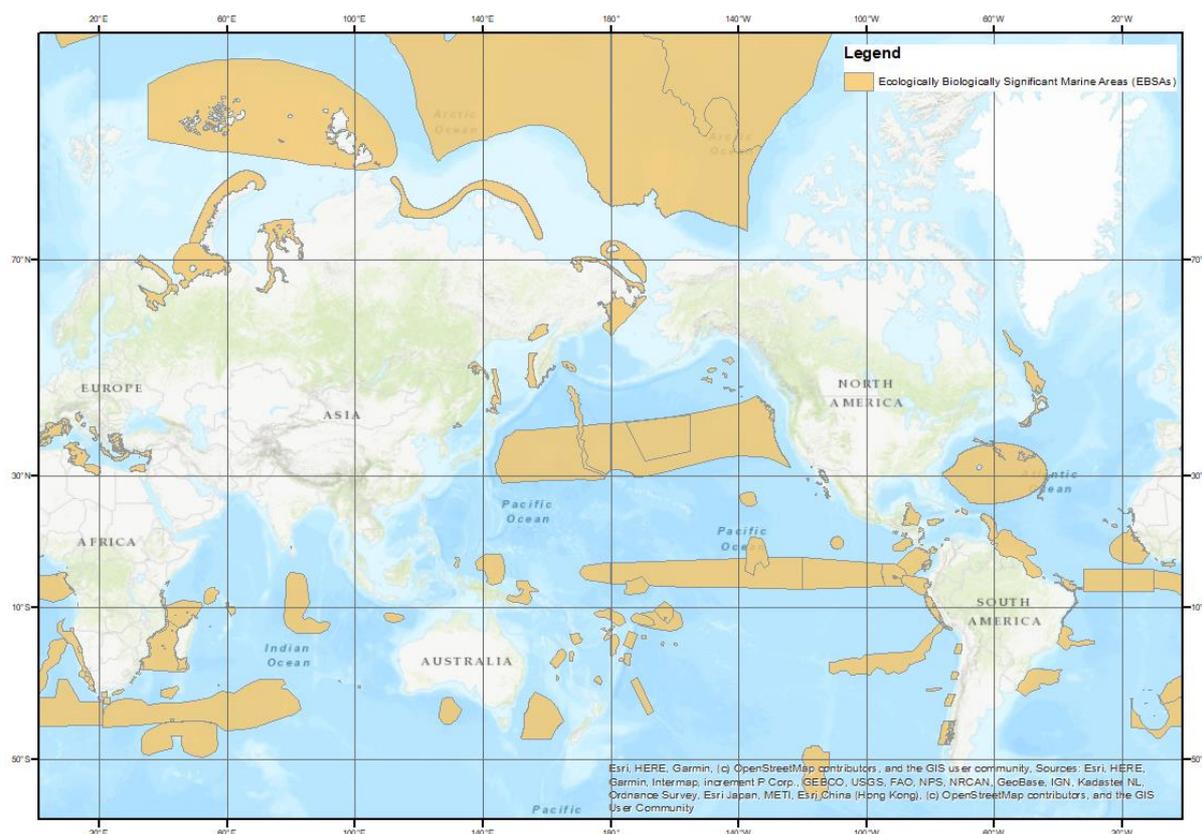


Figure 1. Areas meeting the Ecologically or Biologically Significant Marine Areas criteria ([EBSAs](#))

<sup>4</sup> OSPAR: The Convention for the Protection of the Marine Environment of the North-East Atlantic (the 'OSPAR Convention') [www.ospar.org](http://www.ospar.org)

### 2.1.2 High Seas Vulnerable Marine Ecosystems (VMEs)

The main international framework for marine management is the United Nations Convention on the Law of the Sea; (UNCLOS) signed in 1982. Although not all States have ratified this Convention, most have claimed the 200 nautical mile Exclusive Economic Zones (EEZs) derived from it, enabling States to implement spatial management regimes inside these zones. Outside the EEZs in international waters on the 'High Seas', Regional Fisheries Management Organisation (RFMOs) are charged with international fisheries management. For the Northeast Atlantic, this is the North East Atlantic Fisheries Commission (NEAFC)<sup>5</sup>.

The framework for the protection of High Seas areas has resulted in designation of Vulnerable Marine Ecosystems (VMEs) (Figure 2) under FAO guidelines ([FAO, 2009](#)<sup>6</sup>). VMEs are groups of species, communities or habitats that may be vulnerable to impacts from fishing activities. The concept of a VME sensitive to fishing is not exclusive to the High Seas areas, but it is here that the term is used in management. Both physical impacts by fishing gear and functional importance of the ecosystems are taken into consideration. These concepts apply worldwide, and the approach taken in Northeast Atlantic is outlined below.

Protection is afforded by:

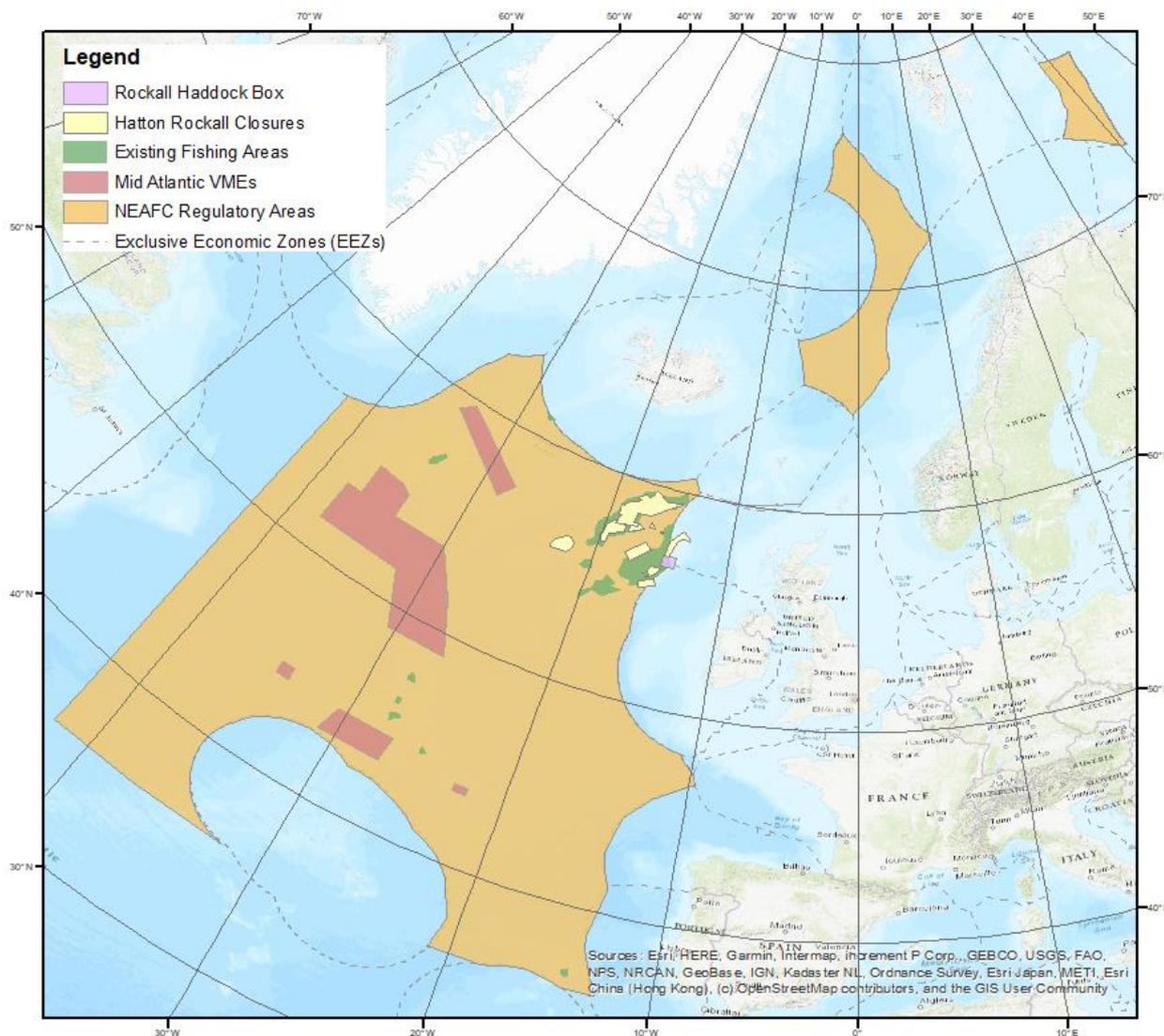
- a) MPAs in specific locations defined by geographical boundaries inside which certain fisheries activities likely to be damaging to habitats are not allowed.
- b) Outside these protected areas 'existing bottom fishing areas' are defined; these are the areas that have been recently fished and where fisheries could continue relatively unrestricted. Bottom fishing outside these areas (i.e. in 'new bottom fishing areas'), which constitute the majority the High Seas areas of the Northeast Atlantic, is allowed for exploratory fisheries, subject to various restrictive conditions. These conditions include a pre-assessment of the proposed activities including scientific advice as to whether a VME is likely to be encountered and may include a requirement for an observer to be present on the vessel.
- c) Encounter rules are implemented in which vessels must report bycatch of certain indicator species, such as sponges or corals, and move fishing activities a set distance away from such encounters.

Figure 2 Illustrates these areas in the NEAFC regulatory areas. These [regulations](#) apply to NEAFC contracting parties consisting of Denmark (in respect of the Faroe Islands and Greenland), the European Union, Iceland, Norway, the Russian Federation and the UK.

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<sup>5</sup> NEAFC: North East Atlantic Fisheries Commission [www.neafc.org](http://www.neafc.org)

<sup>6</sup> See also the [FAO Database of VMEs](#).



**Figure 2. NEAFC Regulatory areas are the High Seas areas of the Northeast Atlantic outside the EEZs of Coastal States. The Rockall haddock box is intended to protect juvenile haddock, the Hatton Rockall Closures and the Mid-Atlantic VMEs which are closed to bottom fishing. Bottom fishing is permitted in the existing fishing areas (green). Exploratory fishing in High Seas areas outside these areas requires a pre-assessment designed to assess risks to damage to VMEs, see Section 2.1.2**

### 2.1.3 Wetland sites; Ramsar Convention

The Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971 known as the [‘Ramsar Convention’](#) is designed to protect wetlands defined as:

*“areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres.”*

Ramsar sites may also incorporate coastal zones adjacent to the wetlands and islands, or bodies of marine water deeper than six metres at low tide lying within the wetlands. The UK, which is a signatory to the Ramsar Convention, has 175 wetland sites designated with Ramsar status, with a combined surface area of 1,283,040 hectares.

## 2.2 Regional

### 2.2.1 Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR)

[OSPAR](#) is the Convention by which fifteen Governments of the western coasts and catchments of Europe, together with the European Union, co-operate to protect the marine environment of the Northeast Atlantic. Signatories to the OSPAR Convention have agreed to establish an 'ecologically coherent', well managed network of MPAs. Many of the MPAs discussed in this document contribute to the OSPAR network. By 2018, the network comprised 496 MPAs with a total surface area of 864,337 km<sup>2</sup>, or 6.4 % of the OSPAR Maritime Area. Progress towards ecological coherence is discussed in [OSPAR \(2018\)](#).

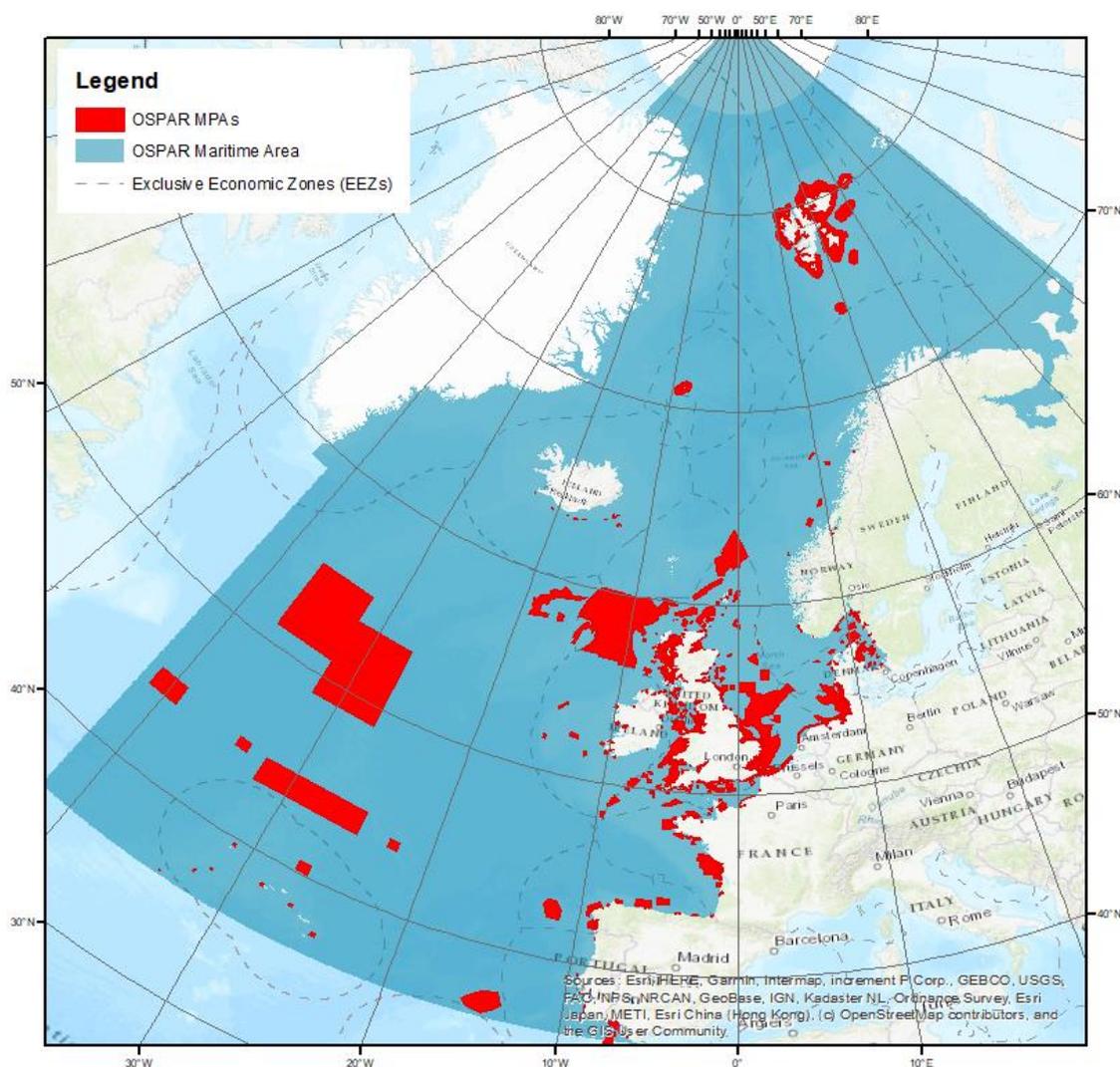


Figure 3. The OSPAR maritime area of the Northeast Atlantic and MPAs in the Northeast Atlantic. These MPAs have been designated by the nations which have signed up to the OSPAR Convention (Section 2.2.1)

## 2.3 Special Area of Conservation (SACs) and Special Protection Areas (SPAs)

Up to until 31<sup>st</sup> January 2020, the UK's commitments through the [Bern Convention](#) were implemented via the [EU Habitats \(92/43/EEC\)](#) and [Birds \(2009/147/EC\)](#) Directives. After the UK's EU-exit, the commitments of the Bern Convention now apply directly to the UK as a signatory. The Bern Convention is a binding international legal instrument in the field of nature

conservation, covering most of the natural heritage of the European continent and extending to some States of Africa.

European Marine Sites (EMS) is an umbrella term describing:

- the marine areas of sites designated as Special Areas of Conservation (SACs) under the EU Habitats Directive which protects habitats of European importance, or
- the habitats of certain protected species, and Special Protection Areas (SPAs) under the EU Birds Directive, which emphasises protection of habitats for endangered and migratory species of birds.

These two designations require site selection that is based on nature conservation parameters and do not permit economic or social impacts to influence the choice of their sites or boundaries. However, economic and social factors can be considered in the management of these sites. EMS can be designated in the inshore and offshore areas of European nations' EEZs.

In the UK, these sites are now under the control of the Conservation of Marine Habitat and Species regulations 2017, as amended ([EU Exit 2019](#)). They will be converted to '[Emerald network sites](#)' under the Bern Convention, retaining their current names and management.

### 2.3.1 European Union MPAs

The Marine Strategy Framework Directive (MSFD) ([2008/56/EC](#)) requires Member States to include in their national programmes of measures the establishment of MPAs, which also links to the OSPAR network of MPAs (see Section 2.4.1 for the UK network). Thus contributing to one of the key objectives of the [Convention on Biological Diversity](#) as agreed at the Rio 'Earth' Summit in 1992: the creation of a global network of marine protected areas.

## 2.4 National

Most nations have developed national networks of MPAs. This Guide concentrates on the UK network.

### 2.4.1 Nature conservation MPA Network in the UK

The UK national MPA network (Figure 4 p 13 and Table 1 page 14) is designed to help fulfil the UK's commitment, under the OSPAR Convention (see above) and other international commitments. This requires the establishment of an ecologically coherent network of MPAs in the Northeast Atlantic, and originally the MSFD prior to the UK leaving the EU. Each UK Devolved Administration has responsibility for designating Marine Conservation Zones (MCZ) - known as Nature Conservation Marine Protected Areas (NCMPAs) in Scotland - in their waters. The UK [Marine and Coastal Access Act 2009](#)<sup>7</sup> requires the involvement of stakeholders in making the initial site recommendations. Each UK Devolved Administration is taking a different approach to identifying and designating these protected sites.

Nature conservation criteria are the first consideration in the selection of MCZs, but socio-economic factors can also be considered. For Scotland, the [Marine Scotland Act 2010](#) and for Northern Ireland, the [Marine Act \(Northern Ireland\) 2013](#), provides for equivalent designations. In Wales, both the [Well-being of Future Generations \(Wales\) Act 2015](#) and the [Environment \(Wales\) Act 2016](#) are relevant.

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<sup>7</sup> It repeals the provision of Marine Nature Reserves (MNRs) under the Wildlife and Countryside Act 1981

These Acts place a duty on UK Government and Devolved Administrations to designate MCZs (NCMPAs in Scotland), so as to contribute to a UK network of marine sites complementing: the network of Emerald sites under the Bern Convention (formally European Marine Sites see Section 2.3); Sites of Special Scientific Interest (SSSIs mostly terrestrial but with some intertidal and subtidal components); designated under the [Wildlife and Countryside Act 1981](#)<sup>8</sup>; and wetlands protected under the Ramsar Convention.

### 3 Assessment and management of UK nature conservation MPAs

Over the past decade, there has been an evolution in the approach to the assessment and management of MPAs. The UK Government agencies responsible for advice, management and monitoring vary between the Devolved Administrations. An outline of responsibilities is given in Table 2 page 15.

In the UK, the approach to managing MPAs is based on the protection of the designated features. There is a process of risk assessment applied to all the activities occurring in the site against the conservation objectives for the features. The process for developing management measures considers a risk assessment for the designated features and implements management measures which satisfactorily protect these features. This does not mean a complete ban on certain activities (e.g. fishing), but it does mean management and mitigation is required when the conservation objectives are considered at risk.

The marine environment is a dynamic, frequently data-poor space and there can be substantial uncertainties in the evidence base underpinning the management of sites necessary to achieve their conservation objectives. Also, the underlying legislation is important. For example, designation of MCZs and NCMPAs can consider social and economic factors, but the site selection of EMS is based solely on nature conservation grounds.

Bringing many sources of information and perspectives to bear in the management of these sites, is seen as key to building consensus amongst stakeholders, and the optimal management of the fishing activities within MPAs. Defra's [revised approach](#) to fisheries management in MPAs is intended to ensure that, management measures are identified for high risk features, and additional fishery management measures for the conservation of the sites are put into place when required. The revised approach has resulted in [detailed risk assessments](#) and mitigating management implemented around the UK particularly in inshore waters around the UK over the past five years.

To facilitate an 'Adaptive Risk Management' approach, designed primarily for offshore MPAs, JNCC and partners have produced the [MPA Fisheries Management Toolkit](#) (JNCC and partners, 2020). This document provides a resource for those involved in and affected by fisheries management decision-making, laying out the key elements to consider when establishing a participatory approach to implementing MPA management. For MPAs the underlying objective is to conserve and/or maintain biodiversity. However, where the MPAs are being managed within a context of pre-existing activities and uncertainty, the toolkit provides a multi-disciplinary approach to risk management.

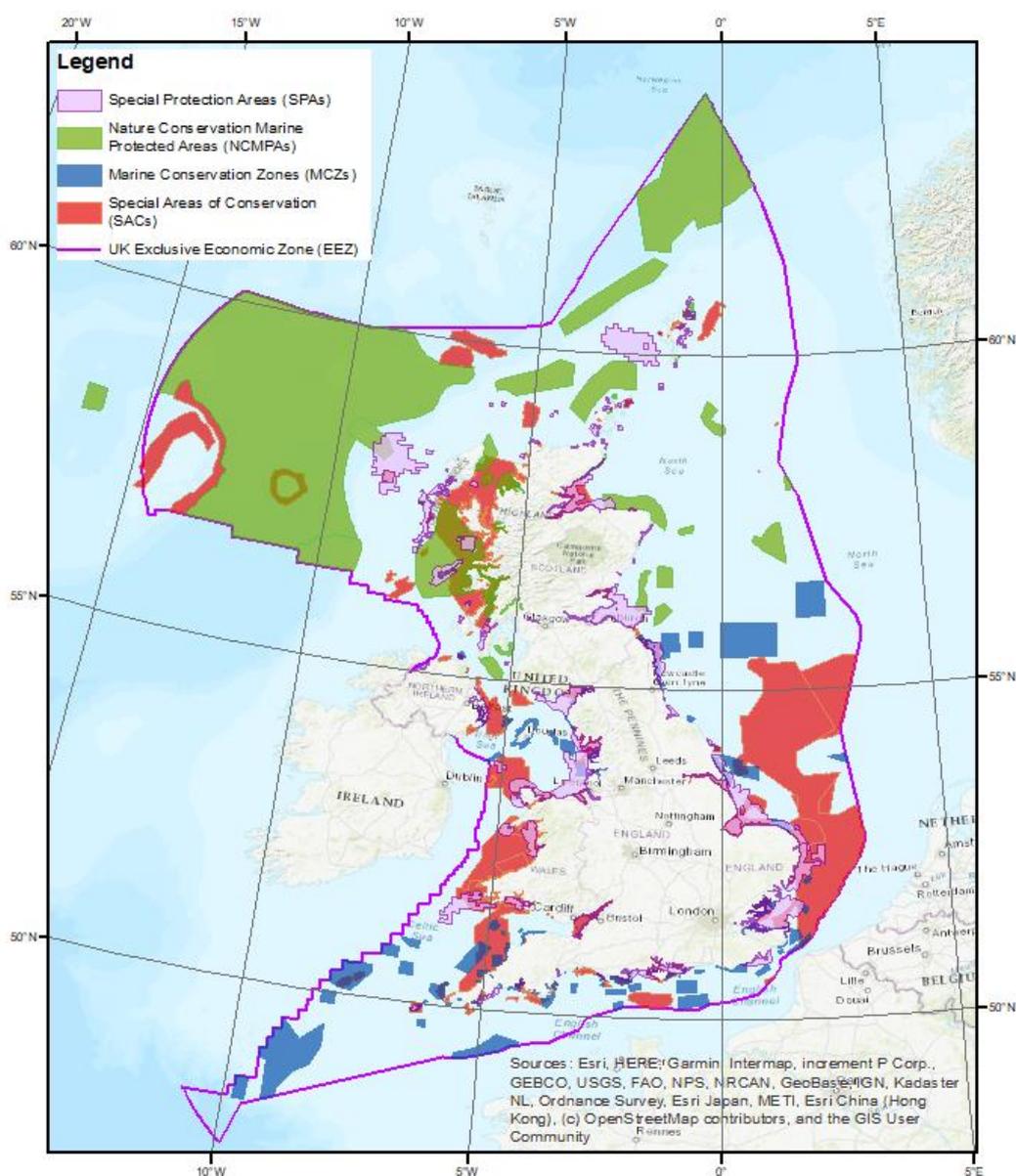
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<sup>8</sup> Areas of Special Scientific Interest in Northern Ireland under the [Nature Conservation and Amenity Lands Order \(Northern Ireland\) 1985](#)

## 4 Mapping of MPAs and management measures

In order to make information on the location of UK MPAs and restricted fishing areas available for fisheries stakeholders, Kingfisher Information Service has undertaken a mapping project designed to make this information – and the permissible and prohibited activities – available in a consolidated and simplified format.

The results are presented on the [UK Fishing Restrictions website](#) which provides a UK-wide dataset available as an interactive web map, and electronic charts for use on-board fishing vessels. The information, which is regularly updated, is designed to better inform fishers of the location of restricted fishing areas and the prohibited and permissible fishing operations in each area – ensuring that fishers are aware of, and able to comply with, fisheries regulations.



**Figure 4 Nature conservation MPAs in UK EEZ waters divided into the various designations. Note this map does not include restrictions for fishery management purposes, refer to [UK Fishing Restrictions website](#) for further information on both fishery management and nature conservation restrictions**

**Table 1 Summary of Nature Conservation MPAs designated, organised by both Devolved Administration and sea area in UK waters (see page 4 for acronyms)**

Administration	Extent
Scottish inshore and offshore	31 NCMPAs 58 SACs, 47 SPAs, 16 Ramsar, 65 SSSIs with marine components ( <a href="#">JNCC UK Marine Protected Area network statistics</a> )
UK offshore and English inshore waters	91 MCZs, 42 SACs, 47 SPAs, and 97 SSSIs (includes Ramsar sites) with marine components (Defra <a href="#">Defra 2018</a> see also <a href="#">Marine conservation zone designations in England</a> ).
Wales inshore and offshore	1 MCZ, 15 SACs, 13 SPAs, 3 Ramsar sites, and 107 SSSIs with marine components. ( <a href="#">National Assembly for Wales Marine Protected Area Research Briefing</a> )
Northern Ireland inshore	5 MCZs, 7 SACs, 9 SPAs, 7 Ramsar sites, and 20 Areas of Special Scientific Interest (ASSIs) with marine components
<b>Totals by sea area</b>	
UK Inshore (territorial sea; 0-12 miles)	Total MPAs = 309 covering 37% of inshore waters (excluding SSSIs and Ramsar sites)
UK Offshore (12miles – EEZ)	Total MPAs = 73 covering 22% of offshore waters
All UK waters (UK EEZ) <a href="#">Reference</a>	Total MPAs = 355 covering 25% of UK waters. (excluding SSSIs and Ramsar sites)

**Notes**

Sites of Special Scientific Interest (SSSIs) with marine components: features which are used to designate these marine components have to extend between Highest Astronomical Tide (HAT) and Mean Low Water (MLW) in England, Lowest Astronomical Tide (LAT) in Wales, or Mean Low Water Springs (MLWS) in Scotland. However, the lower boundary can vary dependent on the extent of the feature and other marked local authority boundaries in an estuary or firth. Areas of Special Scientific Interest in Northern Ireland with marine components normally to MLS. See [Chaniotis et al.,\(nd\)](#) for discussion of lower boundaries of ASSIs and SSSIs

Some MPAs straddle the inshore and offshore regions and therefore contribute to both.

**Table 2 Government agencies responsible for assessment, management, and monitoring of nature conservation MPAs in UK waters (see page 4 for acronyms)**

Region	Type of MPA	Scientific advice	Management Implementation	Advice and Monitoring
Inshore and offshore waters; Scotland	NCMPAs	JNCC	Marine Scotland	Nature Scot for inshore, JNCC for Offshore
UK offshore (excludes Scottish and Welsh offshore waters)	MCZs and European Marine Sites	JNCC	MMO	JNCC
English Inshore waters	MCZs and European Marine Sites	NE with JNCC oversight	Inshore Fisheries and Conservation Authorities (IFCAs): 0-6nm) and MMO (6-12nm)	NE
Inshore and offshore waters; Wales	MCZs and European Marine Sites	NRW with JNCC oversight	Welsh Government	NRW with JNCC offshore
Inshore waters; Northern Ireland	MCZs and European Marine Sites	DAERA, AFBI and JNCC	EMFG of DAERA	EMFG and NIEA
Intertidal zone England, Wales, Scotland	SSSI and Ramsar sites	NE, NRW and Nature Scot with JNCC oversight	Local Authority/Crown Estate/Freeholders dependent on ownership	NE, NRW, Nature Scot
Intertidal zone Northern Ireland	ASSI and Ramsar sites	DAERA and JNCC	DAERA	DAERA

## 5 Other guides in this series

These Guides are designed to enable understanding without the need for previous training or expertise in fisheries science. Concepts are presented graphically and in words and the key elements are explained in the summaries.

The full list of Guides is given below, with the date and letter used for cross reference within this document

Seafish (2022a)  
Guide to Fisheries Management  
SR741 ISBN 978-1-911073-47-5

Seafish (2022b)  
Guide to Fish Stock assessment and ICES reference points  
SR742 ISBN 978-1-911073-48-2

Seafish (2022c)  
Guide to Fishing at Maximum Sustainable Yield  
SR743 ISBN 978-1-911073-49-9

Seafish (2022d)  
Guide to Data-Limited Stock Assessments  
SR744 ISBN 978-1-911073-50-5

Seafish (2022e)  
Guide to Sustainable and Responsible Sourcing  
SR752 ISBN 978-1-911073-58-1

Seafish (2022f)  
Guide to Illegal, Unreported or Unregulated (IUU) Fishing  
SR753 ISBN 978-1-911073-59-8

Seafish (2022g)  
Guide to Marine Protected Areas (MPAs)  
SR754 ISBN 978-1-911073-60-4

Seafish (2022h)  
Guide to Protected Species  
SR755 ISBN 978-1-911073-61-1

These can be accessed through the search facility on <https://www.seafish.org/>

The content of these Guides can be used by Seafood business [apprentices](#) and others to study towards two occupational standards units:

- Principles of marine finfish product knowledge – Ref F-602-0617  
<http://seafoodacademy.org/pdfs/f-602-0617.pdf>

- Principles of shellfish, non-marine finfish and marine food products, product knowledge – Ref A-602-0616  
<http://seafoodacademy.org/pdfs/a-602-0616.pdf>

## 6 References and links

All links accessed January 2022

AFBI, (2020) Scallop Enhancement Desktop Study; a report for Seafish; March 2020 in prep

Benyon, R., (2020); Benyon review into highly protected marine areas

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/890484/hpma-review-final-report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/890484/hpma-review-final-report.pdf)

Bern Convention; The Convention on the Conservation of European Wildlife and Natural Habitats <https://www.coe.int/en/web/bern-convention>

Chaniotis P., Cornthwaite A., and Ridgeway A., (nd) Defining ASSI/SSSI with 'Marine Biological Components' and setting out a process for determining their contribution to the UK MPA network <https://data.jncc.gov.uk/data/2cde282c-2358-4d3f-9072-b1f4f4086545/Defining-SSSIs-ASSIs-with-marine-components.pdf>

CBD, (2009). Azores Scientific Criteria and Guidance

<https://www.cbd.int/doc/meetings/mar/ebsaws-2014-01/other/ebsaws-2014-01-azores-brochure-en.pdf>

CBD, (2020). Ecologically or Biologically Significant Marine Areas; Special Places in the world's oceans <https://www.cbd.int/ebsa/>

Convention on Biodiversity <https://www.cbd.int/>

Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

<https://www.legislation.gov.uk/ukdsi/2019/9780111176573>

Defra (2018)

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/916310/mcaa-mpa-report-2012-2018a.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/916310/mcaa-mpa-report-2012-2018a.pdf)

Defra Marine Conservation Zones in England

<https://www.gov.uk/government/collections/marine-conservation-zone-designations-in-england#2019-mcz-designations-and-factsheets>

Dudley, N. ed. (2008) Guidelines for applying protected area management categories. Gland, Switzerland, IUCN 86pp <https://portals.iucn.org/library/efiles/documents/PAPS-016.pdf>

Emerald network sites under the Bern Convention

<https://www.coe.int/en/web/bern-convention/emerald-network>

EU Birds Directive (2009/147/EC) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009L0147>

EU Habitats Directive (92/43/EEC)

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0043>

Environment (Wales) Act 2016

<https://www.legislation.gov.uk/anaw/2016/3/contents/enacted>

FAO, (2009). International Guidelines for the Management of Deep-sea Fisheries in the High Seas. Rome FAO. 2009. 73p. <http://www.fao.org/fishery/topic/166308/en>

FAO Database of VMEs <http://www.fao.org/in-action/vulnerable-marine-ecosystems/vme-database/en/vme.html>

FAO, (2011) FAO Technical Guidelines for Responsible Fisheries No. 4, Suppl. 4 Marine Protected Areas and Fisheries <http://www.fao.org/docrep/015/i2090e/i2090e.pdf>

JNCC and partners (2020); Marine Management Organisation, Natural England, the National Federation of Fishermen's Organisations and Bangor University (2020)

<https://data.jncc.gov.uk/data/da4ae34c-d0f3-41df-b4fd-79df0a079647/MPA-Fisheries-Management-Toolkit-FINAL.pdf>

JNCC UK Marine Protected Area network statistics <https://jncc.gov.uk/our-work/uk-marine-protected-area-network-statistics/>

Marine Act (Northern Ireland) 2013 <https://www.legislation.gov.uk/nia/2013/10/contents>

Marine and Coastal Access Act 2009

<https://www.legislation.gov.uk/ukpga/2009/23/contents>

Marine Scotland Act 2010

[https://www.legislation.gov.uk/asp/2010/5/pdfs/asp\\_20100005\\_en.pdf](https://www.legislation.gov.uk/asp/2010/5/pdfs/asp_20100005_en.pdf)

Molloy P., McLean I.B., and Isabelle M., Côte, I.M (2009) Effects of marine reserve age on fish populations: a global meta-analysis *Journal of Applied Ecology* 2009, 46, 743–751  
<https://besjournals.onlinelibrary.wiley.com/doi/pdf/10.1111/j.1365-2664.2009.01662.x>

Nature Conservation and Community Lands Order Northern Ireland (1985)  
<https://www.legislation.gov.uk/nisi/1985/170/contents>

North-East Atlantic Fisheries Commission; VME and Closures Maps and Coordinates  
[https://www.neafc.org/managing\\_fisheries/vmec](https://www.neafc.org/managing_fisheries/vmec)

North-East Atlantic Fisheries Commission; Map of NEAFC Regulatory Area Showing Existing Fishing Areas and All Closures <https://www.neafc.org/page/closures>

OSPAR (2018) Status Report on the OSPAR Network of Marine Protected Areas  
[https://www.ospar.org/site/assets/files/40996/assessment\\_sheet\\_mpa\\_status\\_2018.pdf](https://www.ospar.org/site/assets/files/40996/assessment_sheet_mpa_status_2018.pdf)

Ramsar Convention; <https://www.informea.org/en/treaties/ramsar-convention>

Seafish Kingfisher Information Service; MPA mapping for fishermen: A consolidated simplified & practical view of the UK's MPA network  
<https://www.seafish.org/document/?id=94a844f9-e2fa-4104-b763-951369f5dcfa>  
see also [UK Fishing Restrictions website](#)

United Nations Convention on the Law of the Sea (UNCLOS)  
[https://www.un.org/Depts/los/convention\\_agreements/convention\\_historical\\_perspective.htm](https://www.un.org/Depts/los/convention_agreements/convention_historical_perspective.htm)

Well-being of Future Generations (Wales) Act 2015  
<https://www.legislation.gov.uk/anaw/2015/2/contents/enacted>

Wildlife and Countryside Act 1981  
<https://www.legislation.gov.uk/ukpga/1981/69>

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