

Proposed North Sea horse mackerel Fisheries Management Plan



Department
for Environment
Food & Rural Affairs



Scottish
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Executive Summary

The North Sea horse mackerel Fisheries Management Plan (FMP) is one of 43 FMPs set out in the [Joint Fisheries Statement](#) (JFS). It has been developed by the Scottish Government and Department for Environment, Food & Rural Affairs (Defra) with input from industry, scientists, non-governmental organisations (NGOs), and Statutory Nature Conservation Bodies (SNCBs).

This FMP sets out the policies and actions for the North Sea horse mackerel stocks to be maintained at or restored to sustainable levels, ensuring that they can play a key role in providing socio-economic benefits to the UK, whilst also setting out a number of actions to improve management where this is needed.

This FMP covers two separate horse mackerel (*Trachurus trachurus*) stocks:

- horse mackerel in UK waters of ICES Division 4a, which forms part of the Western horse mackerel stock,
- horse mackerel in UK waters of ICES Divisions 4b–c and 7d, which form part of the Southern and Central North Sea (SCNS) and Eastern Channel horse mackerel stock.

These stocks reflect two genetically distinct populations, which are known to mix in the Channel and in the central North Sea. However, the extent of this genetic mixing is uncertain. This FMP applies to management of horse mackerel in UK waters and has been developed in line with the fisheries objectives of the Fisheries Act 2020 (the '2020 Act') and as required by the JFS.

Western horse mackerel is caught as part of a directed pelagic fishery and is also featured as part of the Celtic Sea and Western Channel (CSWC) FMP and the two FMPs should therefore be read in conjunction.

The SCNS and Eastern Channel horse mackerel is caught as part of a bycatch fishery in the Southern and Central North Sea and Eastern Channel. The target fishery for horse mackerel in these areas has been closed since 2025 due to the depleted conditions of the stock and is currently only landed as bycatch.

Horse mackerel is of relatively low economic importance to the UK fishing sector compared with other pelagic species. Despite its limited economic importance, the continued presence of horse mackerel in UK waters and its role within the wider marine ecosystem highlight the importance of maintaining effective and adaptive management measures.

Both the Western horse mackerel and SCNS and Eastern Channel horse mackerel stocks are jointly managed, shared with the EU, and overall fishing opportunities are determined through international negotiation.

This FMP therefore describes a vision with policies and actions which set out how management can continue to support an MSY approach for the North Sea horse mackerel fishery, and highlights areas that could lead to refinements to management approaches in the future. Areas for action include those which support the wider

delivery of policies within the JFS and which contribute to the delivery of the objectives contained within the 2020 Act.

Abbreviations

BMP - Bycatch Monitoring Programme

CFP – Common Fisheries Policy

CO₂e - Carbon Dioxide Equivalent

CSWC - Celtic Sea and Western Channel

Defra - Department for Environment, Food and Rural Affairs

DATRAS - Database of Trawl Surveys

EBFM - Ecosystem-Based Fisheries Management

EU - European Union

FMP - Fisheries Management Plan

FMSY - Fishing mortality consistent with Maximum Sustainable Yield

GES - Good Environmental Status

ICES - International Council for the Exploration of the Sea

JFS - Joint Fisheries Statement

JNCC - Joint Nature Conservation Committee

MCRS - Minimum Conservation Reference Size

MCS - Monitoring, Control and Surveillance

MMO - Marine Management Organisation

MPA - Marine Protected Area

MSY - Maximum Sustainable Yield

MSY Btrigger - Biomass reference point used within the MSY framework

OSPAR - Convention for the Protection of the Marine Environment of the North-East Atlantic

PMF - Priority Marine Feature

REM - Remote Electronic Monitoring

SCNS - Southern and Central North Sea

SNCB - Statutory Nature Conservation Body

SPISDCP - Scottish Pelagic Industry-Science Data Collection Programme

SSB - Spawning Stock Biomass

TAC - Total Allowable Catch

UK - United Kingdom

UK MS - UK Marine Strategy

VMS - Vessel Monitoring System

What is an FMP?

A Fisheries Management Plan (FMP) is a document prepared and published under the Fisheries Act 2020 that sets out policies to restore one or more stocks of sea fish to, or maintain them at, sustainable levels or contribute to the restoring or maintenance at sustainable levels. It is an evidence-based action plan that supports delivery of sustainable fisheries for current and future generations. The FMP is a strategic plan that must be reviewed and, if necessary, revised at least once every six years. It sets out both a long-term vision for the fishery (or fisheries), together with the policies and management interventions necessary in the medium-term to achieve this vision.

Why an FMP for North Sea horse mackerel?

This FMP covers two separate horse mackerel (*Trachurus trachurus*) stocks. Horse mackerel in ICES division 4a is part of the Western horse mackerel stock, and horse mackerel in ICES divisions 4b-c and 7d is part of the North Sea horse mackerel stock. This is explored further under the section 'Scope'.

Western horse mackerel is caught as part of a directed pelagic fishery across ICES Subarea 8 and divisions 2.a, 3.a, 4.a, 5.b, 6.a, 7.a–c, and 7.e–k (Northeast Atlantic and adjacent waters). This FMP covers area 4.a from where some 6% of the landed catch was taken in 2025. However, Western horse mackerel is also featured in the Celtic Sea and Western Channel (CSWC) pelagic FMP¹, which covers Area 7.e, 7.f and 7.g from where around 11% of the landed catch was taken in 2025. Therefore, this document should be read in conjunction with the CSWC pelagic FMP.

North Sea horse mackerel is caught as part of a bycatch fishery in ICES divisions 4.a-b and division 7.d (Southern and Central North Sea (SCNS) and Eastern Channel). The target fishery for North Sea horse mackerel in these areas has been closed since 2025 due to the depleted conditions of the stock and is currently only landed as bycatch.

Pelagic species play an important role in the marine ecosystem and given the presence of horse mackerel in UK waters, it is important that appropriate management measures are in place.

Stakeholder Engagement

This FMP has been informed by a range of stakeholder engagement initiatives. A working group of over 50 industry, environmental and Statutory Nature Conservation Bodies (SNCBs) stakeholders was formed in 2023 and met multiple times to help inform the overall shape and contents of Scottish-led FMPs. On pelagic FMPs specifically, discussion took place over a number of months to gather additional

¹ [Proposed Fisheries Management Plan for Celtic Sea and Western Channel pelagic species](#)

views and input. This was part of a process known as ‘pre-consultation’. As part of the process, the Scottish Government shared drafts of some of the pelagic FMPs and gathered comments from stakeholders at workshops held in March 2026. Stakeholder knowledge has been valuable in providing context for the FMP, and in developing meaningful actions that will support the sustainable management of North Sea horse mackerel in the future.

Feedback received as part of formal public consultation will help shape the final FMP.

Vision

The vision for this FMP is that the Western and SCNS and Eastern Channel horse mackerel fisheries in UK waters are managed sustainably, to help ensure that stocks are maintained above biomass levels capable of producing Maximum Sustainable Yield ²(MSY).

The policies and actions laid out in this FMP set out how this will be delivered in a way that is consistent with, and supportive of, the wider achievement of the fisheries objectives set out in the Fisheries Act 2020, the policies contained within the Joint Fisheries Statement (JFS) and other legislative commitments.

Policies

As there is sufficient evidence for the fisheries policy authority to make an assessment of MSY for the Western horse mackerel stock, the FMP must contain policies which restore this stock to, or maintain it at, sustainable levels or contribute to that restoration or maintenance this stock. The introduction of a bycatch-only TAC for southern central North Sea and eastern Channel horse mackerel increases the risk that the scientific assessment will lose its Category 1 status due to reduced catch and survey information. While currently there is sufficient evidence for the fisheries policy authorities to make an assessment of the SCNS and Eastern Channel horse mackerel stock, the situation may change upon receipt of updated ICES stock category advice. To address this, a joint request has been submitted to ICES seeking advice on options to maintain the evidence base and assessment quality at a level sufficient to support an MSY-based assessment. Maintaining a robust scientific understanding of the stock is important to restoring the biomass to sustainable levels.

In addition, in accordance with section 5.4 of the JFS, the design and structure of FMPs directly relate to the fisheries objectives identified in section 5.4.2 but may also address wider issues in fisheries management depending upon the specific goals or

² The Fisheries Act 2020 defines Maximum Sustainable Yield (MSY) as ‘the highest theoretical equilibrium yield that can be continuously taken on average from a marine stock under existing environmental conditions without significantly affecting the reproduction process

targets of each plan and may contribute to one or more of the remaining fisheries objectives.

To ensure effective ongoing management of the horse mackerel fisheries in UK waters, the FMP identifies six policies focussed on domestic and international management priorities. Each policy describes the outcome that is being worked towards, and the actions intended to support the delivery of those outcomes.

The policies are subject to the consideration of the consultation and will be prioritised to ensure realistic and measurable outputs. They were drafted to meet the requirements of section 6(3)(a) of the 2020 Act (policies 1a and 2a) for Western horse mackerel, section 6(3)(a) of the 2020 Act (policies 1b and 2b) for SCNS and Eastern Channel horse mackerel, and policies set out in the JFS (policies 3, 4, 5 and 6) for both stocks.

For each policy, the plan sets out:

- a rationale;
- ongoing, short- and longer-term actions;
- how the actions support delivery of the fisheries objectives.

The policies of this FMP are to:

- Policy 1a: Harvest the Western horse mackerel stock in ICES division 4a sustainably, contributing to maintaining the biomass above the level capable of producing MSY.
- Policy 1b: Harvest the SCNS and Eastern Channel horse mackerel stock sustainably, contributing to restoring the biomass above the level capable of producing MSY
- Policy 2a: Use the best-available scientific evidence to support management decisions relating to the setting of sustainable fishing opportunities for the Western horse mackerel stock in ICES division 4a
- Policy 2b: Use the best available science, including emerging evidence from ongoing research, to strengthen the management and support the recovery of horse mackerel in the southern and central North Sea and Eastern Channel
- Policy 3: Monitor catches of horse mackerel and ensure that where possible all catches are counted against quotas
- Policy 4: Deliver wider sustainable management by minimising the impact of the horse mackerel fishery on the marine ecosystem
- Policy 5: Support fishing businesses to deliver socio-economic and cultural benefits for communities
- Policy 6: Reduce the impact of fishing on climate change and support the fishing industry to adapt to the impacts of climate change

Western horse mackerel

Sufficient evidence is available to assess MSY for the Western horse mackerel stock in division 4a, and the stock is currently being managed sustainably. The latest assessments in 2025 show that the fishing mortality for western horse mackerel is below F_{MSY} , and the spawning-stock size is above MSY $B_{trigger}$.

SCNS and Eastern Channel horse mackerel

The relevant fisheries policy authorities do not have sufficient evidence to estimate MSY fishing pressure reference points for the SCNS and Eastern Channel horse mackerel fishery covered by this FMP. However, spawning stock size can be assessed, and the latest scientific assessment indicates that the spawning stock biomass is below B_{lim} which means that the catch advice is currently zero.

Despite the absence of fishing pressure reference points, the stock is currently classed as a Category 1 stock by ICES, although at the time of writing this is currently under review. Regardless of the outcome of that review, the evidence base underpinning the stock will need to be strengthened, particularly because the stock is now managed under a bycatch-only TAC, and there is a risk that the evidence available for assessment will differ from that collected historically through dedicated industry-science surveys and directed fishing activity.

Despite these changes the current evidence base is technically considered sufficient, therefore the policies and action for the SCNS and Eastern Channel horse mackerel stock are drafted to meet the requirements of section 6(3)(a) of the 2020 Act.

Scope

Western horse mackerel is covered by a single biological stock in ICES areas 8, 2a, 3a, 4a, 5b, 6a, 7a-c, and 7e-k (Northeast Atlantic and adjacent waters), referred to in this document as Western horse mackerel. The horse mackerel TAC management unit (JAX/2A-14³) is relevant to the FMP area. It covers a wider geographic area than the biological stock unit, including UK and EU waters of 4a; 6, 7a-c, e-k; 8a-b, d-e; UK waters of 2a; UK and international waters of 5b; international waters of 12 and 14.

Horse mackerel in the southern and central part of the North Sea (divisions 4.b-c) and the eastern channel (Division 7.d) is a distinct biological stock, known as the southern and central North Sea (SCNS) and eastern Channel horse mackerel stock.

Both biological stocks are within scope of this FMP. However, they are managed separately and are subject to distinct ICES scientific advice, as well as separate TACs and associated management measures. There is a directed, commercially important fishery in division 4a, in contrast to divisions 4.b-c and 7d, where the fishery is currently limited to bycatch due to the low biomass of the stock.

The 2020 Act requires the relevant authority, or authorities, to prepare and publish FMPs in accordance with the list and timetable included in the JFS.⁴ The relevant authorities for this FMP are the Department for Environment, Food & Rural Affairs

³ TAC management unit for Western horse mackerel

⁴ UK Government (2022) [Joint Fisheries Statement](#). The updated timetables are set out in the updated Annex A (amended December 2024)

(Defra) and the Scottish Government.⁵ The plan has been prepared and published jointly by them for the purposes of the 2020 Act. As the coordinating authority, the Scottish Government has coordinated the preparation and management of this plan on behalf of the other relevant authorities.⁶

Background

Stock

Horse mackerel, also known as scad, comprise two stocks around the British Isles. These stocks reflect two genetically distinct populations, which are known to mix in the Channel and in the central North Sea. However, the extent of this genetic mixing is uncertain.

Adult horse mackerel are known to conduct extensive migrations among spawning, feeding and overwintering areas, but recent population-specific descriptions of these movements are lacking.

The main spawning grounds of horse mackerel around the British Isles are located in areas of the Celtic Sea and southern North Sea. Horse mackerel is a batch spawner, and females release 5-16 batches of eggs over a period of several months. Spawning activity in the Celtic Seas occurs during night-time from April to July with a peak in June. In the southern North Sea, spawning occurs from May to August.

Horse mackerel can grow up to 60 cm (total length) and live to 40 years of age, but they are more commonly observed in the size range of 15-40 cm and up to 15 years old. The species grows rapidly in its early years, with growth slowing markedly after age 3, when it reaches sexual maturity.

Location

Horse mackerel is a widely distributed species which typically occurs on the continental shelves from Gulf of Guinea to the northern North Sea. Around the British Isles the species is found in the Celtic Seas, west of Scotland, in the Channel and across the North Sea. Horse mackerel live and feed both near the seafloor and in the water column, typically at depths between 100-200 metres, but individuals can be

⁵ The definition for an “authority” is given in Annex A (p. 55) of the JFS, which is: “**Authority or Authorities responsible for preparation and publication of plan:** The authority or authorities which are responsible for preparing and publishing the plan. There can be up to four fisheries policy authorities acting jointly in a plan.”

⁶ The definition for a “co-ordinating authority” is given in Annex A (p. 55) of the JFS, which is: “**Coordinating Authority:** The fisheries policy authority which will coordinate the preparation and management of the plan on behalf of the other fisheries policy authorities acting jointly”.

found as deep as 1,000 metres. During the winter and daytime, adults form large, dense shoals, close to the seabed.

This FMP relates to fishing activity for horse mackerel in UK waters of the North Sea and eastern Channel (Figure 1). It covers part of the distribution area of the western stock (ICES Division 4a) and the southern and central North Sea stock (ICES divisions 4.b, 4.c, and 7.d).

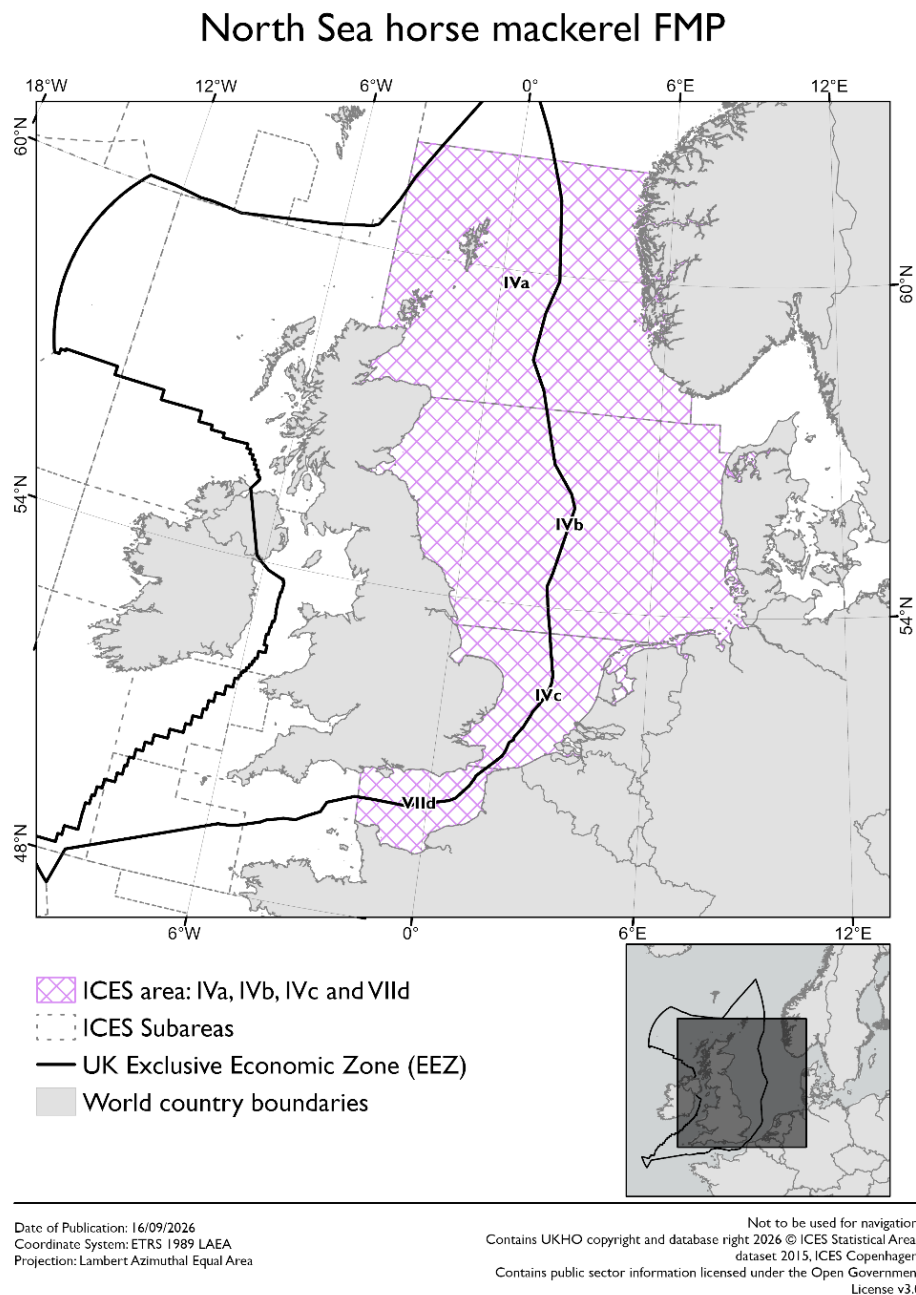


Figure 1: The ICES areas covered by the North Sea horse mackerel FMP

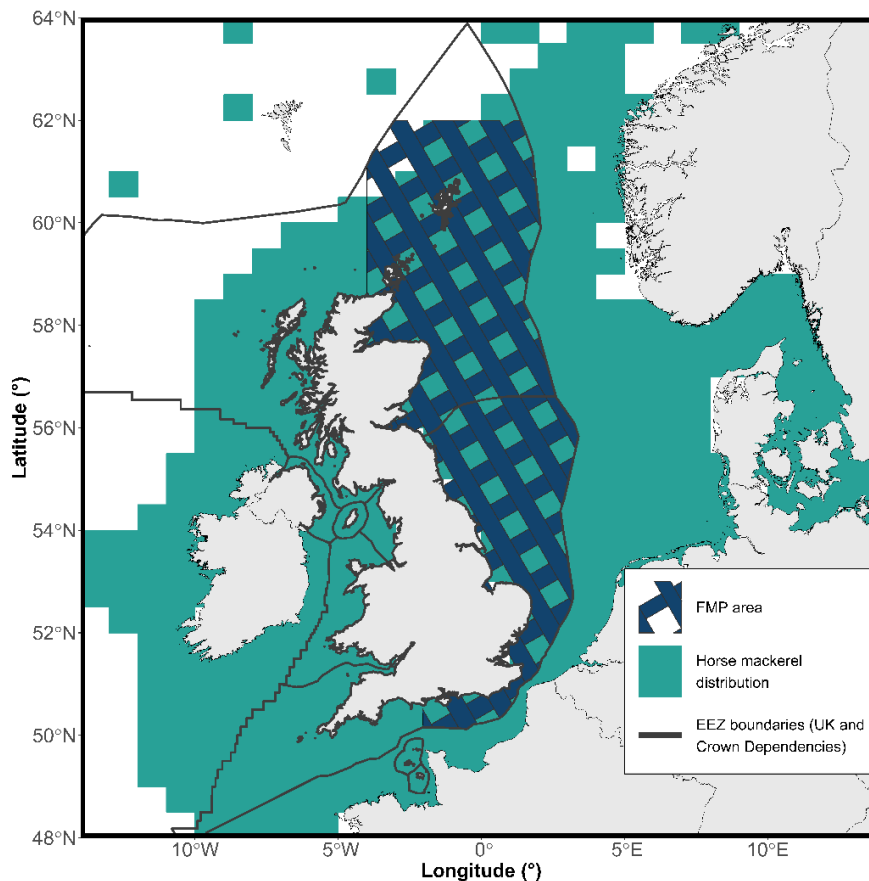


Figure 2. Recorded distribution of Atlantic horse mackerel (*Trachurus trachurus*) around the British Isles, based on data contained in the ICES Database of Trawl Surveys (DATRAS) and from Acoustic Trawl Surveys for the period 1965-2025.

Fishery

Analysis was undertaken of the UK fishing fleet catching horse mackerel in ICES subarea 4, and division 7.d. Between 2018 and 2024, an average of 76% of horse mackerel was caught in division 7.d and 22% was caught in division 4.c. 2% of horse mackerel was caught in 4.a, with less than 1% of horse mackerel caught in 4.b.

Table 1. Landings of North Sea Horse Mackerel, 2018 to 2024

Year	2018	2019	2020	2021	2022	2023	2024
Value (£ million)	2.3	3.3	3.8	4.0	1.9	2.4	1.9
Tonnage	3,270	3,773	4,470	4,751	3,352	3,463	3,759
Value per tonne (£)	713	872	857	840	579	699	503

Source: Analysis of internal Scottish Government data.

The landed value of horse mackerel averaged £2.8 million between 2018 and 2024, with an average tonnage of approximately 3,800 tonnes. The price per tonne averaged

£723 over this period. Analysis of UK fisheries data shows that the majority of horse mackerel is caught by trawls, which caught an average of 96% of the catch between 2018 and 2024. The remaining 4% was caught by vessels using seine nets.

The tables below set out landings from Area 4.a and, separately, from Areas 4.b,c and 7.d for the period 2018 to 2024, the latter being the final year in which a directed fishery operated in the southern North Sea and eastern Channel. Since then, landings from Areas 4.b,c and 7.d have been limited to bycatch from other fisheries, with approximately 99 tonnes landed in 2025. By contrast, landings from Area 4.a have continued at broadly similar levels, with around 132 tonnes taken in 2025.

Table 2. Horse mackerel landing data - Area 4.a

Year	2018	2019	2020	2021	2022	2023	2024
Landed Value (£'000, 2024 prices)	3	90	50	44	61	79	24
Tonnage	4	103	58	53	105	114	48
Price per Tonne (£, 2024 prices)	713	872	857	840	579	699	503

Table 3. Horse mackerel landing data - Area 4.b, c and 7.d

Year	2018	2019	2020	2021	2022	2023	2024
Landed Value (£'000, 2024 prices)	2,330	3,290	3,831	3,991	1,941	2,421	1,891
Tonnage	3,268	3,773	4,470	4,752	3,352	3,463	3,759
Price per Tonne (£, 2024 prices)	713	872	857	840	579	699	503

Between 2015 and 2024, most landings of horse mackerel by the UK fleet were landed abroad. On average, around 91% of horse mackerel landings took place abroad. Landings into the Netherlands made up an average of 88% of the total between 2018 and 2024, with France and Norway making up the remaining 3% of landings abroad. In the UK, the Southwest made up 7% of total landings, while the Humber saw an average of 2% of landings.

Horse mackerel landings are relatively unimportant to UK ports. Plymouth takes in 91% of the value of all horse mackerel landings in the UK, but these landings make up only 1% of the total value of landings in Plymouth. Similarly, horse mackerel landings are only a small proportion of landings for the group that targets it. Pelagic vessels over 40 metres landed 91% of horse mackerel, but it only accounted for 1% of their total landed value.

Stock Assessment and MSY

Scientific evidence

As set out in Section 3.2 of the JFS, the UK takes an evidence-based approach to fisheries management, making use of the best available scientific evidence. For the purpose of stock management and Total Allowable Catch (TAC) setting, this tends to focus on the use of advice produced by ICES, although other sources of information, including data from the fishing industry, may also be used.

ICES provides annual advice for horse mackerel in the southern and central North Sea, eastern English Channel, and in the Northeast Atlantic and adjacent waters. ICES advice is organised according to categories, ranging from 1 (the most information available) to 6 (the least). At the time of writing this draft FMP, the Western horse mackerel stock is classed as a Category 1 stock and is considered to have full age- and size-structured data on which to base an assessment, with MSY reference points available to provide a framework for advice on sustainable management.

Benchmark exercises are a process used by ICES to evaluate existing and new scientific evidence and methods and, where relevant, apply them in the stock assessment process. They are part of the continuous improvement process which ensures that ICES advice is based on the best available scientific evidence. ICES completed an assessment benchmarking process both horse mackerel stocks in 2024.

As a result of the benchmark, horse mackerel in the SCNS and eastern English Channel was upgraded to a category 1 stock and is currently assessed using an age-based model. However, it was not possible to reliably estimate MSY reference points F_{MSY} and $MSY B_{trigger}$ and therefore they are not defined. Evidence underpinning the stock assessment is highly dependent on data from large-scale vessels that previously operated a directed fishery in 4.b-c and 7d. With the cessation of that fishery, this data stream has effectively been lost, and the quality of the scientific advice may therefore decline from Category 1.

Advice is currently being sought from ICES on options that will maintain high-quality evidence to enable MSY to continue to be assessed annually. ICES are expected to report at the end of June 2027. The policies and actions relating to this stock are therefore cognisant of these circumstances and are predicated on the need to engage with ICES and agree appropriate actions to mitigate this loss of evidence.

Assessment of evidence

The following evidence has been collated from the most recent ICES advice sheet assessment working group report ([ICES, 2026](#))

The latest assessments in 2025 show that the fishing mortality for western horse mackerel is below F_{MSY} , and the spawning-stock size is above $MSY B_{trigger}$. On the other hand, the spawning stock size of the SCNS and Eastern Channel stock is below B_{lim} , and consequently the current catch advice for this stock is a TAC of zero. No reference points for fishing pressure have been defined for this stock. With no directed fishery for the southern North Sea and eastern Channel horse mackerel due to the poor state of the stock, and the absence of scientific surveys targeting horse mackerel in this area, the information available to track stock trends is very limited.

Fisheries management

Management strategy for North Sea horse mackerel

In the JFS, the UK fisheries policy authorities lay out a shared ambition to deliver 'world class, sustainable management of our sea fisheries and aquaculture across the UK, and to play our part in supporting delivery of this globally'. The JFS also states that 'As part of being an independent coastal State, the fisheries policy authorities will work together to support a vibrant, profitable, and sustainable fishing and aquaculture sector supported by a healthy marine environment that is resilient to climate change'. These ambitions are managed in line with numerous domestic and international policy drivers, which oblige action to consider and mitigate for the wider adverse environmental impacts of fishing activity.

In UK waters fisheries are managed in line with UK fisheries legislation (such as the 2020 Act, UK and Devolved administration secondary legislation) and licence conditions where appropriate.

The management of the fishery in the UK is carried out within this overarching context.

The fisheries for SCNS and Eastern Channel horse mackerel and for Western horse mackerel are both managed jointly with the EU, with quota opportunities determined through UK-EU bilateral negotiations. The approach to bilateral negotiations follows the principles for international negotiation stated in the JFS. Once the bilateral negotiations conclude, the TAC is agreed and set out in an Agreed Record of the consultations.

Following annual bilateral negotiations, the UK's share of the TAC is published in the UK Quota Determination document by the Secretary of State and under section 23 of the Fisheries Act 2020.⁷ Following this, the UK's quota is apportioned between the four UK Fisheries Administrations in line with the UK Quota Management Rules.⁸ Each UK Fisheries Administration then allocates its share of apportioned quota to vessels/licences under their administration, in line with their quota

⁷ Weblink to Department for Environment, Food & Rural Affairs (2024) [Fishing opportunities for British fishing boats](#).

⁸ [UK and England quota management rules - GOV.UK](#)

management⁹ and Section 25 of the Fisheries Act 2020. Quotas are transferrable, for example, they may be exchanged between the management groups which represent UK fishing vessels or exchanged with the EU.

Whilst there are currently no plans to work towards a long-term management strategy for horse mackerel in the bilateral forum, the 2026 written record between the UK and EU put in place various commitments to support improvements to the evidence base for the southern and central North Sea horse mackerel stock. These are reflected within the policies and actions section of the FMP and demonstrate the importance of collaborative working between international parties to deliver sustainable stock management.

Current technical measures

All fishing activity in UK waters is managed through a range of technical measures. These technical measures were historically laid out in the form of technical conservation regulations written into the Common Fisheries Policy (CFP) legislation through various EU delegated acts, which have been retained into UK law following the UK's exit from the European Union and are referred to as 'assimilated law'. Following the UK's exit from the EU, the UK Government and devolved administrations have various powers available to them to introduce new technical measures, for example by using licence conditions, or through secondary legislation under the Fisheries Act 2020 or other relevant UK laws.

Technical measures tend to apply to specific groupings of vessels, or types of fish, and as such can be very similar. This means that the technical measures in place to support sustainable exploitation of the Western horse mackerel and SCNS and Eastern Channel horse mackerel stocks are likely to be similar to those in place to manage the other pelagic stocks.

Current [technical measures](#)¹⁰ in place in UK waters to ensure sustainable exploitation of the Western and SCNS and Eastern Channel horse mackerel stocks include:

- Minimum Conservation Reference Sizes (MCRS) (which prevents targeting of undersized fish by ensuring that only fish above the MCRS can be sold for human consumption),
- Minimum mesh sizes and structure of fishing nets (which set a minimum standard intended to reduce catches of fish below the MCRS and generally make fishing operations more efficient and effective),

⁹ Weblink to separate quota management rules as set by the [Scottish Government](#) and [Defra](#)

¹⁰ The majority of the technical measures applying to fishing vessels are set out under the Common Fisheries Policy legislation which was passed by the European Parliament in 2013, updated in 2019, and assimilated into UK law on the UK's exit from the EU. [Regulation \(EU\) 2019/1241](#) sets rules to conserve fish stocks and protect marine ecosystems through technical fishing measures and provides details of the assimilated UK law.

- The Landing Obligation¹¹ stipulates that all catches of quota species, which includes North Sea horse mackerel and includes all catches below MCRS must be landed and counted against quota unless exemptions apply.

Further detail regarding technical measures can be found on the UK Government's Technical Conservation and Landing Obligation rules and regulations webpage.¹²

In addition to the above, the SCNS and Eastern Channel horse mackerel stock is currently managed as a bycatch only stock, which means that there is no directed fishery permitted.

Current monitoring and enforcement

Fisheries regulations serve a range of purposes, including the prevention of actions which adversely impact the sustainability of the marine environment. Fisheries policy authorities are focused on reducing the main risks for non-compliance with those regulations.

Fisheries enforcement authorities (the Marine Directorate of the Scottish Government and the Marine Management Organisation (MMO) in this instance) carry out enforcement that is intelligence-led, risk-based or is required by the UK's international obligations. Enforcement of the respective regulations (domestic and international) is in line with applicable guidelines for regulators. Across the UK there are a range of assets to support this, including compliance vessels, surveillance aircraft, and the UK Fisheries Monitoring Centre and Marine Enforcement officers conducting physical and office-based inspections throughout the chain of traceability.

Fishing vessels over 12 metres are required to have fully operational satellite Vessel Monitoring Systems (VMS), and electronic logbooks, enabling authorities to remotely monitor and control fishing activity and encourage higher compliance. Understanding and being able to monitor and control where fishing activity is taking place is an important part of fisheries management, particularly where area restrictions are in place. Accurate and robust locational data is also crucial for informing marine planning decisions.

In addition, from 7 March 2026, pelagic fishing vessels operating in Scottish waters, and Scottish pelagic vessels wherever they are fishing, must have Remote Electronic Monitoring (REM) equipment on board. This will help deter and detect pelagic fishing vessels from engaging in any illegal fishing activity. It will also help deliver a greater confidence in the quality of scientific evidence on fish catches, which is important for stock assessment and advice on sustainable fishing levels.

¹¹ The Landing Obligation is set out in Article 15 of the assimilated EU law Regulation number 1380/2013 This can be accessed on legislation.gov.uk [here](#). Note, subsequent exemptions under the grounds of de minimis or high survivability are set out in supporting EU delegated Acts and UK statutory instruments.

¹² UK Government (2024) [Technical Conservation and Landing Obligation rules and regulations from 2022 onwards](#).

UK fisheries authorities apply a fishing vessel licensing regime along with control measures throughout the whole chain of traceability from catching to sale. These measures include requirements to record catch details whilst at sea, the weight of catch landed, transport and takeover documents once landed, and sales notes from registered buyers. This comprehensive data stream enables fisheries authorities to effectively monitor fishing activity and compliance with national and local regulations. These measures are not specific to the North Sea horse mackerel fishery but apply across the wider pelagic fishing fleet. Compliance risks are factored into the overarching risk management approach taken by the UK fisheries enforcement teams, and also as part of the international monitoring, control and surveillance group (MCS) for pelagic fish stocks in the Northeast Atlantic and will continue to be monitored on an ongoing basis. As a stock managed with other Coastal States, it is important that this FMP reflects appropriate actions identified through MCS group.

Actions to maintain the current monitoring and enforcement approach are contained within 'Actions' under policy 3.

Environmental considerations

Conservation advice

FMPs are subject to legal duties and requirements relating to the protection of the natural environment arising from legislation such as the Habitats Regulations, the Marine Strategy Regulations 2010, and the UK Marine Policy Statement, the Environment Act 2021, Marine and Coastal Access Act 2009, and the Marine (Scotland) Act 2010.

Alongside these requirements, FMPs seek to support a range of other existing environmental policies that focus on enhancing the health of our seas for future generations, restoring marine biodiversity and tackling the causes and impacts of climate change. To support the development of policies aimed at protecting the natural environment, Statutory Nature Conservation Bodies (SNCBs) provided conservation advice¹³ for the Scottish-led pelagic FMPs.

Advice provided to fisheries policy authorities by Statutory Nature Conservation Bodies (SNCBs) gives more detail on the risks associated with fishing for species covered by the pelagic FMPs in relation to the protected features of MPAs, Priority Marine Features (PMFs) for Scotland and UK Marine Strategy Descriptors (UK MS). Joint advice from JNCC and NatureScot, commissioned by the Scottish Government's Marine Directorate and covering Scottish waters, was received for pelagic FMPs in Scottish waters as part of a single assessment. Additional joint advice from Natural England and JNCC, commissioned by Defra and covering English waters, was received for the draft Northern Shelf Blue Whiting FMP,

¹³ [Detailed Nature Conservation Advice from NatureScot and JNCC for Pelagic FMPs](#)

Northern Shelf Mackerel FMP, North Sea Greater Silver Smelt FMP, North Sea Herring FMP, and North Sea Horse Mackerel FMP.

Methodology

The SNCBs developed a 'risk rating' which is intended to help identify where the greatest impacts of fishing are likely to occur. A three-point scale has been used in the conservation advice: low, moderate and high risk.

- Low risk - An impact pathway exists, but evidence or expert opinion suggests that impacts are minimal or unlikely.
- Moderate risk – Interactions rated as moderate risk typically have an evidenced impact or expert judgment indicates a genuine risk, but factors such as evidence gaps around the scale of impact or exposure to pressures, existing mitigations, or difficulties disentangling impact sources, make it difficult to determine whether the risk is high or low. This precautionary approach to risk assessment is aimed at managing identified risks proactively while acknowledging gaps in current understanding. SNCB advice recommends that FMPs consider enhanced data collection or mitigation

options if a moderate risk is identified, taking a proactive approach towards minimising impacts.

- High risk - Interactions identified as high risk are those where available evidence or expert opinion suggests there is an impact at such a scale as is likely to require mitigation.

In contrast to the SNCBs routine advice on environmental sensitivity of distinct habitats or species, the methodology developed specifically for the conservation advice on FMPs provides 'indicative risk ratings' on pelagic fisheries in general. These ratings consider the scale of risk associated with the different components of the pelagic fisheries in Scottish and English waters to help identify where the greatest impacts are likely to occur. The conservation advice provided practical guidance on the most significant risks associated with the interactions between the fishing gear types used to target pelagic fish and the protected features of Marine Protected Areas (MPAs), Priority Marine Features (PMFs)¹⁴ (Scottish waters only) and UK Marine Strategy descriptors.

Summary

The conservation advice highlighted several moderate environmental risks associated with pelagic fisheries in UK waters, including:

- bycatch of fish, marine mammals and birds in the fisheries
- prey reduction, and
- the introduction of marine litter.

Details on the risks to MPAs, PMFs and UK Marine Strategy Descriptors are set out in the below, and more detail can be found in the published conservation advice.

MPAs and PMFs in Scottish Waters

Fisheries contained in the pelagic FMPs have the potential to impact the protected features of MPAs and on PMFs in 2 primary ways;

- through the bycatch of protected features of MPAs/PMFs, and
- the direct (targeted) and indirect (bycatch) removal of prey species on which protected and PMF species depend.

MPAs – risk summary

Evidence suggests that pelagic trawl and purse seine fisheries pose a relatively low risk to the MPA designated marine mammal and fish species features in terms of bycatch¹⁵, with limited records of bycatch of harbour porpoise, grey seals, basking

¹⁴ [Priority Marine Features in Scotland's seas - The List | NatureScot](#)

¹⁵ The UK bycatch monitoring programme ('the BMP') places dedicated sensitive species bycatch observers on pelagic trawl and purse seine vessels. In 2022 the BMP conducted monitoring for 15 days at sea in the midwater trawl fishery and 12 days at sea in seine fisheries. No marine mammal or seabird bycatch was recorded in these gears. Several instances of elasmobranch and fish bycatch were recorded. [Microsoft Word - 2022 BMP Annual Report](#)

shark and 'common' skate. However, due to low sampling effort, improved evidence is needed to support a low risk rating for these species.

Several MPA designated bird species features are considered sensitive to bycatch in these fisheries; guillemot, razorbill and cormorant have all been recorded as bycatch in pelagic trawls. In light of limited evidence on bycatch and based on the potential sensitivity to bycatch, expert advice suggests the risk ought to be classed as moderate.

Owing to gaps in the available evidence, the risk rating for bycatch in pelagic fisheries is considered moderate. However, with the introduction and rollout of REM to pelagic fishing vessels in English and Scottish waters, this will enhance the evidence base and could lead to a downgrading of the risk in the future.

This topic is explored further in Policies 3 and 4.

All the fish species managed through the pelagic FMPs are considered prey species for a broad range of predators and as such, are an important part of the marine ecosystem around Scotland. There is good evidence to demonstrate that many of the pelagic species covered in the pelagic FMPs are key prey for many of the designated fish, marine mammal, and seabird features in Scottish MPAs. However, the extent to which features rely on specific pelagic prey species is less clear. As such, the risk rating for pelagic fisheries in Scottish waters regarding removal of important prey species that designated species depend on is considered moderate.

This topic is explored further in Policies 1, 2 and 4.

PMFs (Scotland only)– risk summary

As discussed above for MPA features, pelagic fisheries are not expected to pose a substantial risk of bycatch; however, as evidence gaps remain this has resulted in a precautionary rating of '**moderate**' for PMF bycatch. Addressing evidence gaps through the collection of REM data, or through enhanced data collection will improve confidence in the assessment of bycatch risks, and may result in a downgrading of the risk in the future.

This topic is explored further in Policies 3 and 4.

Several marine mammal and fish PMFs, in addition to those species designated as MPA features, are likely to utilise pelagic species at various life stages as a prey resource. Though they exhibit a variety of foraging strategies, many killer whale groups, including those that visit Scottish waters, are fish-eating specialists, feeding almost exclusively on schooling pelagic fish species such as herring and mackerel. Fin whales feed on small schooling fish species such as herring and sprat. Herring and mackerel are also important prey species for adult porbeagle. Many of the species targeted by fisheries listed under the pelagic FMPs are important prey species for a variety of cetaceans and fishes, including species of conservation interest which are not listed as PMFs, such as the humpback whale. There is a lack of evidence available in relation to the overall ecosystem interactions, and therefore

a moderate risk to PMFs (fish, marine mammals) through removal of key prey species in pelagic fisheries is concluded.

This topic is explored further in Policy 4.

MPAs in English Waters

The main impacts of the fisheries incorporated in this FMP on the protected features of MPAs arising from fishing activity outside MPA site boundaries, with an indication of their risk level, are summarised below.

- There is a moderate risk of bycatch of mobile species that are protected features of MPAs in pelagic trawls, ringnets, purse seines, and pelagic drift nets
- There is a moderate risk to the protected species of MPAs from reductions in their prey through the targeted sprat fishery.

UK Marine Strategy Descriptors

Background

The UK Marine Strategy Regulations 2010 (SI 2010/1627) provide the policy framework for delivering marine environmental policy at the UK level and set out how the vision of clean, healthy, safe, productive, and biologically diverse oceans and seas will be achieved. The Regulations require the Secretary of State, in consultation with the devolved authorities to define the characteristics of Good Environmental Status (GES). In turn the Secretary of State and devolved policy authorities must develop an associated Programme of Measures to deliver this. The [UK Marine Strategy Part Three: UK Programme of Measures](#) outlines the actions and initiatives the UK is taking to do this.

The advice focussed only on the most relevant descriptors in terms of risks posed by commercial and recreational fisheries: D1 biodiversity, D3 commercial fish and shellfish, D4 foodwebs, D6 seafloor integrity and D10 marine litter. In the UK Marine Strategy (UK MS) these descriptors are assessed using indicators for each of their constituent 'ecosystem components.' The assessment was undertaken by providing advice on the risks to eight descriptor-ecosystem component combinations:

- Cetaceans - D1, D4
- Seals - D1, D4
- Seabirds - D1, D4
- Fish - D1, D4
- Foodwebs - D4
- Seafloor integrity - D1, D6
- Marine litter - D10

The results of an initial consideration of the available evidence and expert opinion of the main risks arising from the fisheries covered by the pelagic FMPs to UK MS Descriptors are summarised below.

Risk summary

There is a moderate risk to achieving GES for the biological diversity of cetaceans, seals, and birds, due to impacts from pelagic fishing activities related to bycatch and through targeted removal of herring, as an important prey species. However, it is important to understand the differences between fishing methods. For trawl vessels, it is thought they have relatively little bycatch risk (although evidence could be improved – as set out already). The lack of evidence to provide a confident assessment of bycatch risk suggests the risk is likely to be moderate. Given the importance of pelagic stocks within the UK marine ecosystem, the potential to impact prey availability needs further consideration for pelagic fisheries.

This topic is explored further as part of Policy 4.

There is a moderate risk to marine litter, with limited evidence available to help disentangle the relative contribution of pelagic fisheries to marine litter. The conservation advice indicates that more robust estimates of abandoned, lost, or discarded fishing gear from pelagic fisheries are required.

The advice also acknowledges that fishing litter is likely to be a relatively small component of overall marine litter, therefore fishing measures alone are unlikely to contribute significantly to the achievement of GES. In Scotland a range of actions are undertaken to address issues with marine litter, as set out in the Marine Litter Strategy for Scotland¹⁶ and these will continue to be delivered as part of a separate programme of work.

It should be noted that there is ongoing work with regard to the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) to implement the second Regional Action Plan on Marine Litter. This includes action to tackle marine litter from land and sea-based sources, including fishing.

Context and interpretation of the conservation advice¹⁷

On bycatch, the moderate risk relates to the limited evidence base, and can be classed as a precautionary rating. Given that REM policies for the Scottish pelagic fleet (which are the main pelagic targeting vessels in the UK) are well advanced, and that positive steps are being undertaken elsewhere in the UK to introduce REM, this evidence gap will be addressed, and this is noted within the FMP.

On predator/prey interaction, many pelagic species are integral parts of the wider food web and can often be key predatory and/or prey species. Whilst these interactions between different parts of the food chain are understood, at the present time, ICES do not fully account for these interactions and the needs of predators in its annual advice. However, management decisions that incorporate ecosystem-based fisheries management (EBFM) considerations may nonetheless

¹⁶ [The Scottish Government Marine Litter Strategy](#)

¹⁷ This section is not part of the original conservation advice and provides information on the policy context in which the FMPs are nested.

be justified where they are supported by wider fisheries science and evidence. Actions to consider this further are contained in the policies and actions section.

On marine litter, there are two main considerations, firstly the risk that fishing in general, (rather than specifically pelagic fishing) presents to marine litter overall, and secondly, gaps in evidence. These two considerations have resulted in a moderate risk rating. However, the fisheries policy authorities do not believe that there is a prevalence or significant risk of marine litter in pelagic fisheries and therefore a specific action on this is not included within the FMP, although positive action is being taken by the UK, through OSPAR, on this, as set out above.

As noted within the FMPs, the pelagic fishing industry is largely regarded as a relatively clean fishery. In general terms, pelagic fish tend to school together as a species, meaning that different species can be targeted by fishing vessels rather than being caught as part of a mixed fishery. This reduces, although doesn't eliminate, unwanted catches of fish that aren't the target species. In the UK there is currently a requirement under fishing vessel licence conditions for all fishing vessels operating in UK waters to report any bycatch (incidental mortality or injury) of marine mammals to the Marine Management Organisation (MMO) within 48 hours of the end of the fishing trip. As of August 2025, no marine mammal bycatch has been reported in Scottish waters to the Marine Management Organisation. Finally, the main fishing fleet targeting pelagic species operates with trawls that rarely come into contact with the seabed, meaning that benthic disturbance is generally not an issue. This is important context in considering the conservation advice and whether any new management action is necessary.

Environmental and ecosystem considerations are also included in the Proposed Fisheries Management Plan for Celtic Sea and Western Channel pelagic species¹⁸, which should be considered alongside this FMP.

Climate Change

Climate change impacts on horse mackerel

Pelagic species respond to warming seas faster and over greater distances than most demersal fish because they closely track temperature and plankton availability (Baudron et al., 2020¹⁹; Montero-Serra et al., 2015²⁰).

There are two genetically distinct populations of horse mackerel around the British Isles. The western horse mackerel population has the widest distribution, is the largest of the two and mixes with the smaller northern population from the North Sea in the English Channel. However, exactly where and to what extent these populations mix is uncertain. Horse mackerel occupy both pelagic and demersal habitats, feeding throughout the water column and near the seabed. Adult fish

¹⁸ [Proposed Fisheries Management Plan for Celtic Sea and Western Channel pelagic species](#)

¹⁹ [Changing fish distributions challenge the effective management of European Fisheries](#)

²⁰ [Warming shelf seas drive the subtropicalization of European pelagic fish communities.](#)

undertake seasonal migrations between feeding, spawning and overwintering areas and can form large shoals, making them an important mid-trophic species within marine food webs.

Although horse mackerel is of relatively low economic importance to the UK fishing sector compared with other pelagic species, it remains an important component of the marine ecosystem and is affected by climate-driven changes in the marine environment. Given its wide geographic distribution, horse mackerel can respond to changing environmental conditions through shifts in distribution, migration patterns, growth, spawning dynamics and recruitment success.

Climate-related changes in spawning phenology, larval transport and prey availability may influence recruitment strength and year-class success, with environmental variability in temperature, ocean circulation and upwelling shown to affect horse mackerel recruitment and early life-stage survival (Alvarez & Chifflet, 2012²¹; Klein et al., 2018²²). Evidence from the North Sea and wider Northeast Atlantic indicates that climate change is already influencing horse mackerel populations, with implications for stock productivity, ecosystem functioning and fisheries management (Lavín et al., 2007²³; AZTI, 2023²⁴; Fuentes-Pardo et al., 2023²⁵). In addition to direct climate impacts, climate-driven changes in plankton communities and prey availability may also influence growth, recruitment and distribution of horse mackerel.

Key observed patterns include:

- Evidence from the Northeast Atlantic indicates that horse mackerel distribution has changed through time in response to changing ocean conditions (Baudron et al., 2020), although warming projections are expected to have little impact on suitable habitat area and latitudinal shift in UK waters (Townhill et al., 2023).
- Sea warming has been associated with changes in horse mackerel biology and ecology, including reductions in body size, shifts in population size structure, changes in spawning timing and changes in distribution patterns (Harding et al., 2013²⁶; Fuentes-Pardo et al., 2023; AZTI, 2023);
- Temperature appears to be an important driver of local adaptation and population structure, influencing growth, migration and spawning behaviour. Continued ocean warming may alter habitat suitability and connectivity between components of the stock (ICES, 2025²⁷; AZTI, 2023).

²¹ [Spatio-temporal dynamics in the discards of trawl fisheries in the eastern Mediterranean](#)

²² [Small scale temporal patterns of recruitment and hatching of Atlantic horse mackerel \(L.\) at a nearshore reef area](#)

²³ [Environmental variability in the North Atlantic and Iberian waters and its influence on horse mackerel \(*Trachurus trachurus*\) and albacore \(*Thunnus alalunga*\) dynamics](#)

²⁴ [AZTI, 2023: Species acclimatization pathways: Latitudinal shifts and timing adjustments to track ocean warming](#)

²⁵ [The genomic basis and environmental correlates of local adaptation in the Atlantic horse mackerel](#)

²⁶ Harding, H; Rutterford, L; Genner, M; Jennings, S; Simpson, SD (2013). Impacts of climate change on the body size of horse mackerel in the North Sea. University of Exeter. Conference contribution. <https://hdl.handle.net/10871/19852>

²⁷ [ICES advice: Horse mackerel \(*Trachurus trachurus*\) in divisions 4.b, 4.c, and 7.d \(southern and central North Sea, eastern English Channel\)](#)

- Recent ICES advice²⁸ for horse mackerel in the southern and central North Sea and eastern English Channel recommended zero catch for 2026 because of the poor state of the stock and persistent recruitment concerns, although these trends cannot be attributed solely to climate change.

Despite its limited economic importance to UK fisheries, the continued presence of horse mackerel in UK waters and its role within the wider marine ecosystem highlight the importance of maintaining effective and adaptive management measures.

Climate-driven changes in distribution, stock productivity and recruitment may affect the representativeness of fishery-independent surveys and increase uncertainty in stock assessment outputs and management advice (Baudron et al., 2020; Lavín et al., 2007). Climate change is likely to increase uncertainty in stock dynamics and distribution, reinforcing the need for management approaches that can respond to changing environmental conditions (Fuentes-Pardo et al., 2023). See Table 4 below for climate related changes and projected direction for horse mackerel:

Table 4. Climate related changes and projected direction of change for North Sea horse mackerel

Stock	Current Stock Type / Thermal Affinity	Observed Climate-Related Changes	Projected Direction of Change (to ~2050)
Horse Mackerel	Pelagic species and important mid-trophic component of marine food webs. Evidence indicates that temperature is a key environmental driver influencing local adaptation and population structure.	Reduced average body size, shifts in size structure, changes in spawning timing, evidence of climate-related changes in distribution and population dynamics, environmental influences on recruitment variability.	Continued ocean warming is expected to influence distribution, migration and recruitment. The magnitude and precise direction of change remain uncertain and will depend on future environmental conditions and stock responses.

Vessel emissions

In addition to the impacts of climate change on horse mackerel and the fisheries that interact with the species, it is important to consider the contribution of fishing activity to greenhouse gas emissions and the need for all sectors to meet net zero targets. The UK policy authorities have different targets relating to climate change and are developing plans to support the drive towards net zero.

The fishing sector contributes to greenhouse gas emissions primarily through fuel use by fishing vessels, the use of refrigerants, and the transport and distribution of

²⁸ [ICES Stock Assessment: Horse mackerel \(*Trachurus trachurus*\) in Subarea 8 and divisions 2.a, 3.a, 4.a, 5.b, 6.a, 7.a–c, and 7.e–k \(Northeast Atlantic and adjacent waters\)](#)

seafood products (Engelhard et al., 2022²⁹). At UK level, fuel use from all fishing activity contributed an estimated 467 kt CO₂e in 2024—representing around 0.12% of total UK territorial emissions (378 Mt CO₂e) and 0.43% of domestic transport emissions (109 Mt CO₂e), and equivalent to about 1.1% of agricultural emissions (41.0 Mt CO₂e).

Pelagic fishing vessels typically have higher daily fuel consumption than many other fishing fleet segments, reflecting the scale of their operations and the distances travelled during fishing trips. Daily fuel consumption in the pelagic fleet accounts to around 17% of total emissions at fleet segment (Metz et al., 2022³⁰). Despite the relatively high fuel use of pelagic vessels, when emissions are assessed per unit of landed output (e.g. edible protein), pelagic species have high catch volumes relative to fuel use and, generally, have comparatively lower emissions than most other seafood (Sandison et al., 2021³¹).

Although horse mackerel is present in UK waters, the stock is of relatively limited economic importance to UK fisheries and UK ports, with a significant proportion of UK horse mackerel catches landed outside the UK.

While the direct contribution of the horse mackerel fishery to UK fishing activity is relatively small, consideration of emissions reduction and fuel efficiency remains relevant as part of wider efforts to support a sustainable, economically viable and climate-resilient fishing sector.

Long term considerations

Climate change is increasing uncertainty in the distribution, productivity and management of pelagic fish stocks. Although horse mackerel is not a major contributor to UK fishing activity, climate-driven changes in its abundance, distribution and productivity may affect its ecological role and reinforce the need for adaptive, evidence-led fisheries management.

To support delivery of the climate change objective in the 2020 Act, as well as of national strategies such as Scotland's Fisheries Management Strategy, the fisheries policy authorities will work in partnership with stakeholders to support fisheries in the drive to net zero and consider where and how we need to adapt our approaches to take account of the impacts of climate change.

The FMPs will be reviewed and revised as research into climate change impacts develops and new methods to address challenges from climate change become available.

FMP policies

²⁹ [Carbon emissions in UK fisheries: recent trends, current levels, and pathways to Net Zero](#)

³⁰ [Assessing greenhouse gas emissions from Scotland's fishing fleet](#).

³¹ [The environmental impacts of pelagic fish caught by Scottish vessels](#).

In developing the policies and actions for this FMP, the fisheries policy authorities have considered the current policy landscape including applicable international agreements and declarations, conservation advice and wider policy development already underway, in addition to considering what additional evidence, measures or policies may be needed to support both the vision of this FMP and delivery of the Fisheries Act 2020 objectives. In most cases, individual actions within this FMP will directly link to one or more of the Act's objectives and these links are made below. FMPs are one of the tools that support the achievement of the fisheries objectives, although they are not the only policy vehicle available to do this. The fisheries policy authorities have also considered the conservation advice received from the SNCBs and included the outputs from that work in considering where policy action may be needed.

This FMP has been developed within the wider context of the Marine Plans in place in England, Scotland and Northern Ireland. Consideration will also be given to the objectives and principles outlined in the EU-UK Trade and Cooperation Agreement when considering measures.

In most cases further policy development work will be needed for any new actions, which could include additional evidence gathering or public consultation, along with the completion of appropriate impact assessments.

It should also be noted that both the Western horse mackerel and SCNS and Eastern Channel horse mackerel stocks are jointly managed, shared with the EU, and therefore overall fishing opportunities are determined through international negotiation. The stocks are subject to different management measures in different areas of the sea by individual Coastal States, so we will endeavour to work in cooperation to jointly deliver sustainable management and catching opportunities for the stocks.

The first two policies set out below largely relate to management measures to achieve long-term sustainability of the horse mackerel stocks, and the remaining policies set out actions in relation to wider sustainable management. Policies 1 and 2 have been separated to reflect the differing health and evidence base underpinning the Western horse mackerel and SCNS and Eastern Channel horse mackerel stocks.

Policy 1a: Harvest the Western horse mackerel stock in ICES division 4.a sustainably, contributing to maintaining the biomass above the level capable of producing MSY

Rationale

The primary aim of the FMPs, such as this FMP where there is sufficient available scientific evidence to enable assessment of the Western horse mackerel stock's MSY, is to set out policies designed to maintain or restore the stock to a sustainable

level or contribute to that restoration or maintenance. This is in line with section 6(3)(a) of the Fisheries Act 2020, where the role of fisheries managers is to help ensure stocks are harvested sustainably, in order to protect the long-term viability of the stocks and the fisheries that depend upon them.

The use of TACs as a measure to manage fisheries is a key approach adopted by the UK to help ensure that the fishing pressure on Western horse mackerel is kept within sustainable levels, whilst also taking account of relevant socio-economic factors. This is consistent with the sustainability objective of the Act.

The health of fish stocks can change over time and is also affected by a range of different factors not only fishing activity. Given fishing pressure on Western horse mackerel is currently below F_{MSY} and SSB is above $MSY B_{trigger}$, the UK fisheries policy authorities are broadly confident that the health of the Western horse mackerel stock can continue to be managed through the use of TACs. Implementation of REM in March 2026 on Scottish vessels will enhance monitoring of catches, further supporting the use of a TAC management approach. Defra is also working towards introducing REM in English waters. The actions below are therefore focussed on maintaining and improving the current management approach.

Actions

Ongoing actions

- Continue to take an approach to TAC setting informed by the best available scientific advice and in line with an MSY approach.
- Continue to work with the EU to support the sustainable harvesting of the stock through international negotiations.

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

- sustainability objective
- precautionary objective
- scientific evidence objective
- ecosystem objective

Policy 1b: Harvest the SCNS and Eastern Channel horse mackerel stock sustainably, contributing to restoring the biomass above the level capable of producing MSY

Rationale

The Fisheries Policy Authorities are currently awaiting advice from ICES regarding whether a proposed acoustic survey is sufficient to maintain the stock as a Category 1 assessment, or whether the advice will be downgraded to the extent that MSY

cannot be assessed in the absence of a directed fishery (with the associated limits on data collection that this presents). Depending on the outcome, the draft FMP may be updated prior to final publication to reflect the latest advice. However, based on the current ICES category the FMP has been drafted to meet the section 6(3)(a) requirements of the 2020 Act. Given the uncertainty around the evidence base the actions below reflect the steps being undertaken to improve the evidence base underpinning the stock. The actions also reflect the steps that Fisheries Policy Authorities are already taking to manage the SCNS and Eastern Channel horse mackerel stock, by taking a precautionary approach to TAC setting, maintaining a bycatch only fishery, and continuing to work with the EU with the aim of ensuring that sustainable management takes place.

Actions

Ongoing actions

- Continue to determine fishing opportunities informed by the best available scientific advice.
- Continue to take a precautionary approach by managing the stock as a bycatch only fishery until the biomass is improved to sufficient levels.
- Continue to work with the EU through international negotiations with the aim of improving the evidence base to support action to improve the biomass of the stock.

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

- sustainability objective
- precautionary objective
- scientific evidence objective
- ecosystem objective

Policy 2a: Use the best-available scientific evidence to support management decisions relating to the setting of sustainable fishing opportunities for the Western horse mackerel stock in ICES division 4.a

Rationale

This policy is in accordance with section 3.2 ('Science and Evidence') of the JFS.

Scientific evidence is essential for delivering appropriate and sustainable fisheries management. A considerable level of work is carried out at national and international level to ensure that the scientific evidence base is robust and up-to-date.

Western horse mackerel has a high level of scientific evidence and data in place which already enables fisheries policy authorities to make an MSY assessment for

the stock and to take evidence-based decisions in relation to the setting of fishing opportunities.

The actions below are focussed on maintaining the current data collection and scientific approach, along with considering longer-term improvements.

Some actions are not specific to the Western horse mackerel stock but are general actions which underpin the UK's overall approach to collection and use of scientific data to support fisheries management.

Actions

Ongoing actions

- Continue to participate in ICES working groups to support ongoing data collection and maintenance of the international scientific evidence base that supports the setting of fishing opportunities at sustainable levels.
- Continue to undertake scientific surveys, participate in international stock assessments and contribute to the international advice process.
- Continue to work collaboratively with the Scottish pelagic industry in the Scottish Pelagic Industry-Science Data Collection Programme (SPISDCP), allowing data to be gathered on a haul by haul basis, ensuring that representative high-quality catch data are gathered and submitted to ICES.
- Continue to use the best available evidence to underpin management decisions, implementing the precautionary approach when robust data is not yet available.

Short term actions (one to two years)

- Utilise additional and new data streams, including the use of biological data from the self-sampling scheme of the SPISDCP, and scientific data derived from new technology such as REM.

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

- sustainability objective
- scientific evidence objective
- precautionary objective

Policy 2b: Use the best available science, including emerging evidence from ongoing research, to strengthen the management and support the recovery of horse mackerel in the southern and central North Sea and Eastern Channel

Rationale

This policy is in accordance with section 3.2 ('Science and Evidence') of the JFS.

Scientific evidence is essential for delivering appropriate and sustainable fisheries management. A considerable level of work is carried out at national and international level to ensure that the scientific evidence base is robust and up-to-date.

As already discussed in this FMP, the fisheries policy authorities are currently awaiting ICES advice regarding the categorisation of the SCNS horse mackerel stock and whether evidence gathered from acoustic surveys is sufficient to maintain it at Category 1. The actions below reflect this and indicate next steps.

In addition, there is evidence of mixing between the western stock and the SCNS stock in the English Channel (divisions 7.d and 7.e) but the spatial and temporal pattern of the mixing is unknown. This knowledge is essential to identify the probability of catching southern North Sea horse mackerel in 7e, which could delay or even prevent the recovery of this stock. Research is ongoing in relation to this, and the outcome will be important in ensuring that appropriate management actions are in place to support future sustainability.

Actions

Ongoing actions

- Continue to participate in ICES working groups to support ongoing data collection and maintenance of the international scientific evidence base that supports the setting of fishing opportunities at sustainable levels.
- Continue to use the best available evidence to underpin management decisions, implementing the precautionary approach when robust data is not yet available.

Short term actions (one to two years)

- Following ICES advice on the adequacy of existing acoustic surveys and advice on effective monitoring of the stock, work with the EU to agree next steps which may include carrying out additional acoustic surveys from 2027 onwards, as required for the stock assessment.
- Use the outputs from the work plan set by ICES with regards to genetic sampling and use this information to support management decisions to rebuild the southern North Sea and eastern Channel biomass.
- Work with the EU and ICES to support the assessment of potential mixing between this stock and the Western waters stock and to which level and consider what measures might be applied to protect the southern North Sea and eastern Channel biomass in 7.e ahead of international negotiations for 2028, subject to further scientific evidence.

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

- sustainability objective
- scientific evidence objective
- precautionary objective

Policy 3: Monitor catches of horse mackerel and ensure that where possible all catches are counted against quotas

Rationale

This policy is in accordance with section 4.2.8 ('Reducing Bycatch and Minimising Catches of Sensitive Species') of the JFS.

Pelagic fisheries are, in the main, classed as a relatively 'clean' fishery, meaning that issues with discarding and bycatch are deemed to be minimal. Given the capability of pelagic trawl vessels to take large tonnage hauls, the impact of any discarding / slipping, should it take place, would be considered high.

There is a legislative requirement under the landing obligation to land all species of fish subject to quota regulations, and for fishers to ensure that all catches are counted and recorded. From March 2026, all pelagic fishing vessels fishing in Scottish waters and all Scottish pelagic vessels wherever they fish, must have REM on board. Similar measures are being developed for English waters. REM is an effective way of ensuring that fishing vessels comply with relevant fisheries legislation.

REM will also support fisheries managers to understand levels of fish bycatch within pelagic fisheries and take appropriate action if needed. This is consistent with the action suggested within the pelagic conservation advice.

Actions

Ongoing actions

- Continue to monitor pelagic fishing activity using REM and other tools and take appropriate action to tackle non-compliance as needed.
- Monitor levels of fish bycatch within pelagic fisheries and take appropriate management action as required.

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

- bycatch objective
- scientific evidence objective

- sustainability objective

Policy 4: Deliver wider sustainable management by minimising the impact of the horse mackerel fishery on the marine ecosystem

Rationale

This policy is in accordance with section 4 ('Delivering Sustainable Management of Fisheries') of the JFS.

To varying degrees, all forms of fishing have an impact on the marine environment and marine ecosystems, whether through the removal of target fish species or incidental bycatch of non-target fish or other marine species.

Understanding and minimising these impacts is an important part of delivering an ecosystem-based approach. The fishing industry has taken a number of steps over previous years to try and mitigate against this, for example by using more selective fishing gears, or trialling new tools to reduce bycatch of non-fish species and seabirds. The conservation advice that supports this FMP has identified some impacts and evidence gaps that need to be addressed in order to ensure that the risk posed by pelagic fishing to the wider marine ecosystem is minimised. In particular, conservation advice has flagged the need for an improved evidence base around bycatch levels and a recognition of the need for greater understanding and identification of potential actions in relation to predator/prey interactions, given the importance of pelagic species in the marine food chain – although in general terms horse mackerel is of relatively low importance for predators in the North Sea which prefer other forage fish. In some cases, action is already being taken on this and there are a range of policies and initiatives already in place or in development across the UK which contribute to this.

Actions

Ongoing and long-term actions (three to five years)

- Monitor levels of bycatch in pelagic trawl fisheries through REM, to improve understanding of risk and to support appropriate management if required.
- Where possible, improve evidence base on the ecosystem role and function of horse mackerel to support an improved understanding of the most appropriate ecosystem-based management approach for these stocks.
- Promote existing good practice within the fishing industry in relation to handling of sensitive marine species and returning them to the sea unharmed, where practical to do so.

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

- sustainability objective
- ecosystem objective
- bycatch objective

Policy 5: Support fishing businesses to deliver socio-economic and cultural benefits for communities

Rationale

The UK Government holds an ambition to enable fisheries to continue to deliver social and economic benefit to coastal communities to benefit present and future generations. As already set out in this FMP, SCNS and Eastern Channel horse mackerel formed an important income stream for some fishing businesses prior to its depletion and subsequent bycatch status. Whilst the Western horse mackerel fishery in division 4a does not see high landings, it is part of a wider fishery taking place across the Northeast Atlantic. It is important, therefore, to recognise the potential role that horse mackerel can play in supporting jobs and providing a source of economic input and output. Fish is also a rich source of protein and forms an important component of food production within the UK.

There is an ongoing role for Governments to help create the right conditions for businesses to operate sustainably and with certainty about the future.

Actions

Short-term and ongoing actions (one to two years)

- Continue to take account of socio-economic considerations as part of international negotiations and as part of the process to determine fishing opportunities.
- Continue to gather and use evidence on economic aspects of the fishery to ensure management decisions are informed by the best available evidence.

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

- equal access objective
- national benefit objective
- sustainability objective

Policy 6: Reduce the impact of fishing on climate change and support the fishing industry to adapt to the impacts of climate change

Rationale

This policy is in accordance with section 4.1 ('Delivering Sustainable Management of Fisheries - Our approach to Fisheries Management') of the JFS.

The evidence base underpinning climate change and fisheries is developing, and more work is needed to fully understand a) how carbon emissions can be reduced in a sustainable way, and b) the likely impacts of climate change on fish stocks and fishing communities and the scale / nature of change required to adapt.

Continued sea warming is expected to influence horse mackerel distribution, migration and productivity, although the extent of future changes remains uncertain. The actions below consider how we can build and use an improved evidence base in order to make informed decisions on management action for the future.

In comparison to other forms of food production, fishing can provide a high-protein and low carbon method of production and offers opportunities to provide food security particularly as we move towards net zero. However, we also know that fishing vessels need to reduce fuel emissions in the future although there are no ready solutions in place for fishing vessels to currently utilise.

The actions set out below will also apply to other stocks in the fishery. However, as our evidence base grows, we will understand better the specific impacts of climate change on North Sea horse mackerel, and the scale of change required to support vessels fishing for North Sea horse mackerel to reduce their emissions and also adapt to changes in the North Sea horse mackerel stock and general fishing conditions. These actions are likely to adjust over time and will become more refined.

Possible measures which could support this are already in development and / or being delivered. The FMP will support these measures, although it is not directly introducing or delivering them.

Actions

Medium to long term actions (three to five years)

- Collaborate with partners across government, industry, and academic sectors on initiatives to reduce environmental impacts of the North Sea horse mackerel fishery (including CO2 emissions).
- Collaborate across the UK and internationally on further evidence and analysis to understand the impact of climate change on North Sea horse mackerel and develop options for how the North Sea horse mackerel fishery may adapt to climate change impacts in the future.

- As additional information becomes available in relation to climate change, explore the implications for this stock.

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

- sustainability objective
- climate change objective
- Ecosystem objective

Implementation and Monitoring

Implementation

The actions contained within this FMP will be taken forward following its publication. However, it is important to remember that many of the actions are already underway and part of multi-year delivery programmes.

Indicators for monitoring the effectiveness of the plan and review process

This FMP contains a number of policies and actions intended to ensure that the North Sea horse mackerel fishery covered by this FMP is fished sustainably with respect to an MSY approach and also to support improvements in the overall management approach.

ICES stock assessments assess how fish populations have changed over time and the effect that fishing pressure is having on stocks. Key biological indicators are provided as reference points, which give indication towards their MSY, fishing pressure and spawning stock biomass. Fisheries policy authorities undertake a review of ICES stock assessments on an annual basis, to determine how stocks are performing against these reference points, and any other reference points provided within the advice^{32,33}.

The health of the stock will continue to be reviewed in this way as part of the ongoing negotiations cycle, utilising the ICES stock assessment process, and will also be reviewed on a more in-depth basis as part of the ICES benchmark process (which varies from stock to stock). The health of the stock will be the indicator used to monitor the effectiveness of this FMP in managing the North Sea horse mackerel stock sustainably.

The policies and actions within this FMP will be reviewed as part of the three-year review cycle for the JFS. In addition, as set out within the Fisheries Act 2020 and the JFS, this FMP will be reviewed at least every six years. An earlier review may be

³²Supplementary Tables - Scottish Sea Fisheries Statistics 2024 - gov.scot

³³ [Assessing the sustainability of fisheries catch limits negotiated by the UK for 2026](#)

triggered in light of a change to relevant evidence, international obligations, or wider events. The decision to review earlier will be taken by the fisheries policy authorities. The review of the FMP will include a report on individual policies and actions and whether they have been a) implemented and b) any known interactions between the actions and health of the stock.

Glossary

Acoustic survey - A scientific survey method that uses sound waves to estimate the abundance and distribution of fish stocks

Biomass - The total weight of a fish stock or population within a given area

Bycatch - Fish or other marine species that are caught unintentionally while targeting another species

Bycatch-only fishery - A fishery in which a species may only be landed when caught incidentally while targeting other species

Coastal State - A country with rights and responsibilities for managing marine resources within waters under its jurisdiction

Directed fishery - A fishery that actively targets a particular stock or species

Ecosystem-based fisheries management (EBFM) - An approach to fisheries management that takes account of interactions between species, habitats and wider ecosystem processes

Evidence-based management - Management decisions informed by the best available scientific, economic and stakeholder evidence

Fishing mortality - The proportion of a fish stock removed through fishing activity

Fisheries Management Plan (FMP) - A statutory plan prepared under the Fisheries Act 2020 setting out policies and actions to achieve sustainable fisheries management

Good Environmental Status (GES) - The environmental condition that the UK Marine Strategy seeks to achieve for marine waters.

Horse mackerel (*Trachurus trachurus*) - A pelagic fish species found throughout the Northeast Atlantic and managed under this FMP

Landing Obligation - A requirement that catches of quota species must generally be landed and counted against quota, subject to specific exemptions

Marine Protected Area (MPA) - A designated area where management measures are used to conserve marine species, habitats or ecological features

Maximum Sustainable Yield (MSY) - The highest long-term average catch that can be taken from a fish stock without reducing its future productivity

Mixing - The occurrence of fish from different biological stocks occupying the same area and potentially being caught together

Pelagic fishery - A fishery targeting species that live in the water column rather than on or close to the seabed

Precautionary approach - An approach to management that takes action to reduce risks even where scientific uncertainty exists

Priority Marine Feature (PMF) - A marine species, habitat or geological feature identified as a conservation priority in Scottish waters

Quota - A share of a Total Allowable Catch allocated to a country, administration, licence holder or vessel

Recruitment - The process by which young fish survive and enter the fishable stock

Remote Electronic Monitoring (REM) - The use of cameras and sensors on vessels to record fishing activities and catches

Shared stock - A fish stock that occurs in waters managed by more than one state or fisheries authority

Shoal - A large group of fish swimming together

Spawning Stock Biomass (SSB) - The total weight of sexually mature fish within a stock

Stock assessment - A scientific evaluation of the status of a fish stock, including its abundance, fishing mortality and sustainability

Sustainability objective - The Fisheries Act 2020 objective requiring fish stocks to be exploited in a way that is environmentally sustainable in the long term

Total Allowable Catch (TAC) - The maximum quantity of a stock that can be caught over a specified period, usually one year

Vessel Monitoring System (VMS) - A satellite-based system used by fisheries authorities to monitor vessel position and activity

Western horse mackerel stock - Biological stock of horse mackerel occurring across ICES areas 2a, 3a, 4a, 5b, 6a, 7 and 8 and managed under a separate TAC area

SCNS and Eastern Channel horse mackerel stock - Biological stock of horse mackerel found in the southern and central North Sea (ICES 4b-c) and eastern English Channel (ICES 7d)