



Department
for Environment,
Food & Rural Affairs



Llywodraeth Cymru
Welsh Government

Proposed Fisheries Management Plan for Celtic Sea and Western Channel pelagic species

February 2026

Version: public consultation



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Abbreviations

Cefas – Centre for Environment, Fisheries and Aquaculture Science

CSMA – Cornish Sardine Management Association

Defra – Department for Environment, Food and Rural Affairs

FMP – fisheries management plan

GES – good environmental status

ICES – International Council for the Exploration of the Sea

IFCA – inshore fisheries and conservation authority

JFS – Joint Fisheries Statement

JNCC – Joint Nature Conservation Committee

MCRS – minimum conservation reference size

MMO – Marine Management Organisation

MPA – marine protected areas (this can include SACs – special areas of conservation, MCZs – marine conservation zones, SPAs – special protection areas, HPMAAs – highly protected marine areas)

MSC – Marine Stewardship Council

MSY – maximum sustainable yield

NQS – non-quota species

NRW – Natural Resources Wales

REM – remote electronic monitoring

SNCB – statutory nature conservation bodies

TAC – total allowable catch

The Act – the Fisheries Act 2020

UKMS – UK Marine Strategy

Executive summary

The Celtic Sea and Western Channel pelagic fisheries management plan is one of 43 FMPs set out in the [Joint Fisheries Statement \(JFS\)](#). In this document we'll refer to it as “this FMP” or “the FMP”. It has been developed by the Department for Environment, Food and Rural Affairs (Defra) and the Welsh Government, in partnership with

- UK scientists
- regulators
- statutory nature conservation bodies (SNCBs)
- other stakeholders, including industry representatives and environmental non-governmental organisations

Its goal is to deliver long-term sustainable management of pelagic fisheries in English and Welsh waters of International Council for the Exploration of the Sea (ICES) divisions 7e, 7f, 7g, 7h. This is in line with the objectives of the [Fisheries Act 2020](#) ('the Act') and as required by the JFS.

What is an FMP?

An FMP is an evidence-based action plan designed to deliver sustainable fisheries in the long term. It sets out both a longer-term vision and goals for the fishery (or fisheries), together with the policies and management interventions necessary to achieve these goals in the short-term.

Where appropriate, it may identify actions to address wider issues recognised during its development, such as environmental or social and economic considerations. To remain effective, the FMP will be regularly reviewed and updated to ensure it responds to new evidence and practical experience. It must be reviewed and, if necessary, revised at least once every six years.

Why an FMP for Celtic Sea and Western Channel pelagic stocks?

Pelagic fisheries in the English and Welsh waters of the Celtic Sea and Western Channel contribute socially and economically to coastal communities. They are also considered ecologically important as forage fish species (prey for many other sensitive and protected species).

This FMP covers 6 stocks in the English and Welsh waters of ICES divisions 7e, 7f, 7g, 7h:

- sardine (*Sardina pilchardus*) in subarea 7 (southern Celtic Seas and the English Channel) – a non-quota species
- anchovy (*Engraulis encrasicolus*) – a non-quota species
- atlantic herring (*Clupea harengus*) included 2 stocks
 - Western Channel and Bristol Channel herring – covered by TAC management unit HER/7EF
 - Celtic Sea herring – covered by the corresponding stock management unit HER/7GK
- western horse mackerel (*Trachurus trachurus*) – covered by the TAC management unit JAX/2A-14
- greater silver smelt (*Argentina silus*) in ICES areas 7–10, 12, and 6b – covered by the TAC management unit ARU/567)

For sardine, anchovy and Western Channel and Bristol Channel herring stocks there is insufficient scientific evidence to enable the relevant authority or authorities to assess stocks and provide advice in relation to maximum sustainable yield (MSY) principles. Therefore, this FMP sets out policies to maintain or increase levels of these stocks, including the steps to obtain the scientific evidence necessary to enable an assessment of the stocks' MSY.

For the Celtic Sea herring, western horse mackerel and greater silver smelt stocks there is sufficient evidence available to provide advice in relation to MSY. Therefore, this FMP sets out policies that at least contribute to maintaining or restoring these stocks to sustainable levels.

This FMP sets out the current management for each of the stocks alongside the evidence available to ensure the long-term sustainability of the fisheries, considering the environmental, ecological, social and economic aspects of the fisheries.

This FMP includes both commercial and recreational fisheries under the umbrella definition of 'fisheries' set out in the Act. Therefore, any reference to either the fishing sector or industry includes recreational and commercial fishing.

The natural capital approach

As part of Defra's [marine Natural Capital and Ecosystem Assessment \(mNCEA\) programme](#), this FMP was chosen to pilot how a natural capital approach could be applied to fisheries management. A natural capital approach is one that fully considers and understands the interdependencies of humans and nature.

Through the mNCEA programme, additional environmental, economic, and societal evidence was gathered and analysed (outlined in detail in the supporting [evidence statement](#)) to support the application of the natural capital approach and the development of the FMP. The mNCEA programme also supported further stakeholder engagement (summarised below and outlined in detail in the supporting engagement report) to ensure a natural capital approach was applied to the governance of the development of the FMP.

Stakeholder engagement

The FMP has been co-developed with a 'partnership' group (the FMP Partnership) set up for this purpose, led by the Marine Management Organisation (MMO). The FMP Partnership involved expert stakeholders and representatives including scientists, regulators, statutory nature conservation bodies (SNCBs), the fishing industry, recreational fishers, environmental non-governmental organisations (eNGOs), Defra, Welsh Government, and other key industries that use the FMP area. The FMP Partnership co-designed the FMP goals and actions, providing valuable insight to the condition of fish stocks and fisheries, and the potential effects of policy changes on the wider ecosystem, fishers and other dependent communities.

The FMP Partnership ran in parallel with the FMP technical working group ('the technical working group'), chaired by Natural England. The technical working group included representatives from Defra, Welsh Government and arms-length bodies and acted as an advisory group, particularly in the earlier stages of development when there was a focus on exploring evidence.

To facilitate engagement beyond the FMP Partnership, a series of workshops, briefings and direct contact with individual stakeholders and groups of stakeholders were held. More information on both the FMP Partnership and wider stakeholder engagement activities that informed this FMP can be found in the FMP engagement report.

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

FMP vision

The vision for this FMP is that fisheries for sardine, anchovy, herring, horse mackerel and greater silver smelt in the Celtic Sea and Western Channel (English and Welsh waters) are managed to achieve environmental, social and economic sustainability, for the benefit of coastal communities and wider society, based on the best available evidence.

The policy goals outlined below set out how this could be achieved using a natural capital approach. Further details on the approach can be found in the supporting [evidence statement](#).

Policy goals

To ensure effective management of sardine, anchovy, herring, horse mackerel, and greater silver smelt fisheries in the Celtic Sea and Western Channel, this FMP sets out 8 policy goals that address key priority areas. These goals were developed to:

- directly reflect the priorities identified by the FMP Partnership
- respond to the issues and opportunities highlighted by the current evidence
- align with legislative and regulatory requirements

These goals are subject to consideration of consultation responses and will be prioritised appropriately to ensure realistic and measurable outputs. They were drafted to meet the requirements of section 6(3) of the Act (policies 1, 2, and 3) and policies set out in the JFS (policies 4, 5, 6, 7 and 8).

For each goal, the plan sets out:

- a rationale
- short-term actions (1 to 2 years)
- medium to long-term actions (more than 3 years)

Indicators for monitoring the performance and effectiveness of the FMP are detailed towards the end of the document in the 'implementation, monitoring and review' section.

These are the 8 policy goals of this FMP.

1. Harvest sardine, anchovy and Western Channel and Bristol Channel herring stocks sustainably, with the overall aim of maintaining or increasing levels of the stocks.
2. Harvest Celtic Sea herring, horse mackerel and greater silver smelt stocks sustainably, with the overall aim of maintaining or restoring biomass of the stocks above the level capable of producing MSY or a suitable proxy.
3. Seek to improve the evidence base for all stocks, including to allow for an assessment of MSY or a suitable proxy where necessary.
4. Identify and support implementation of ecosystem-based fisheries management approaches appropriate for pelagic fisheries in the Celtic Sea and Western Channel.
5. Understand and reduce the impacts of fisheries covered by this FMP on non-target species, including by minimising, and where possible, eliminating bycatch of sensitive species.
6. Reduce the impact of fishing on climate change and support the fishing industry to adapt to the impacts of climate change.
7. Improve understanding of, and help realise, the economic, social and cultural benefits of pelagic fisheries included in this FMP.
8. Facilitate a collaborative and adaptive management approach to support fair, effective, and transparent decision-making for sustainable and resilient pelagic fisheries.

Scope and purpose

The Celtic Sea and Western Channel pelagic FMP is a joint plan between Defra and the Welsh Government. It covers stocks of sardine, anchovy, herring, horse mackerel, and greater silver smelt within English and Welsh waters of ICES areas 7e, 7f, 7g, and 7h.

This FMP has been prepared and published to:

- comply with [requirements in the Joint Fisheries Statement \(JFS\)](#)
- comply with section 6 for the purposes of the [Fisheries Act 2020](#),
- comply with the [Environmental Assessment of Plans and Programmes Regulations 2004 \(the SEA regulations\)](#)
- contribute to achieving the [8 fisheries objectives in the Act](#)

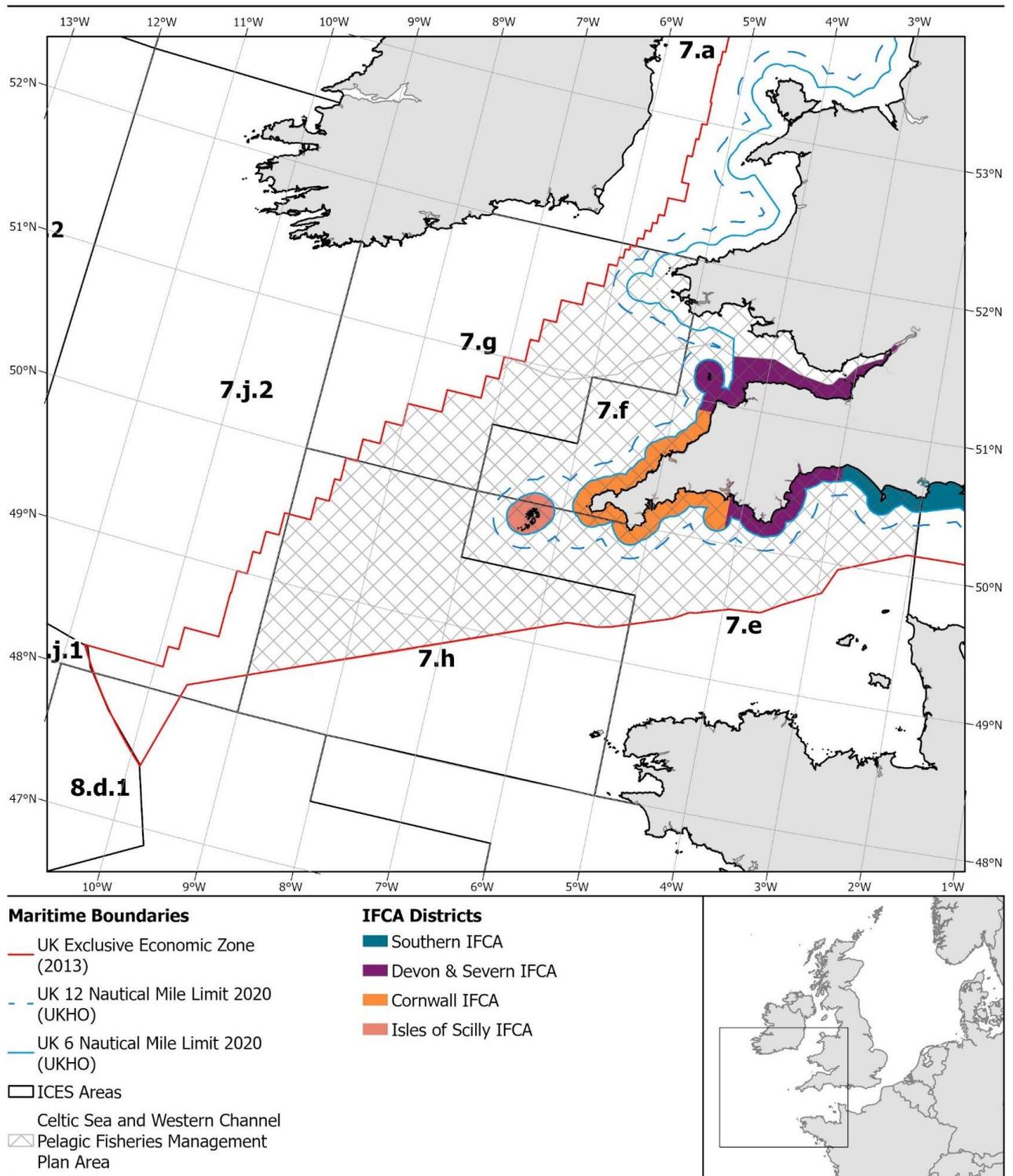
The preparation process had regard for the marine plans (as required by section 58(3) of the [Marine and Coastal Access Act 2009](#)) and the environmental principles (as required by sections 17(5) (a-e) and 19(1) of the [Environment Act 2021](#)). The FMP overlaps with [the South Marine Plan](#), [the South West Marine Plan](#) and the Welsh National Marine Plan 2019. It has been prepared and published to comply with the Welsh Ministers' duty to seek to maintain and enhance biodiversity and promote the resilience of ecosystems under the [Environment \(Wales\) Act 2016](#) (section 6(1)), and to contribute to the well-being goals and the Welsh Ministers' well-being objectives set under the [Well-being of Future Generations \(Wales\) Act 2015](#) (sections 3 to 5).

Description of the FMP species, stocks and fisheries

The following section summarises the geographical area, species, stocks and fisheries covered by this FMP. It gives an overview of the biology and ecology of each species, and for each stock it summarises the stock assessment methods, and commercial fishing activity.

Geographical area

This FMP applies to English and Welsh waters of ICES areas 7e, 7f, 7g, and 7h.



Date of Publication: 13/06/2024
 Coordinate System: ETRS 1989 LAEA
 Projection: Lambert Azimuthal Equal Area
 MMO Reference: CSWCD__FMP_jur.bound.v1

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Figure 1. Map showing the geographical area covered by this FMP

Species and stocks

This FMP covers 5 pelagic species, along with their associated biological stock units (used for ICES scientific stock assessments), and TAC management units as relevant to the geographical area covered by this plan. The relevant species and their biological stock units and TAC management units are summarised below:

Sardine

European sardine, also known as pilchard, is covered by a single biological stock in subarea 7 (southern Celtic Seas and the English Channel).

There is currently no corresponding TAC management unit for sardine. Sardine is not part of the Trade and Cooperation Agreement. ICES provides advice for Sardine in subarea 7. Sardine is regarded as non-quota species. However, the Cornish Sardine Management Association (CSMA) sets an annual voluntary catch limit for the sardine fishery around the Cornwall coast (UK). This catch limit only applies to CSMA vessels and is a fraction of the biomass calculated by the scientific monitoring survey and does not reflect the entire stock and geographic range of the FMP.

Anchovy

European anchovy is not currently subject to a stock assessment and so the biological stock is unknown.

There is no TAC management unit in the FMP area for anchovy. Anchovy is non-quota species.

Herring

Atlantic herring is covered by 2 biological stock units:

- the Western Channel and Bristol Channel in ICES areas 7e and 7f – the TAC management unit
- the southern Irish Sea, Celtic Sea and southwest of Ireland covering ICES areas 7g, 7h, 7j, 7k, referred to in this document as Celtic Sea herring

For herring, there are 2 TAC management units in the FMP area that are directly aligned with the corresponding biological stock units:

- Herring (Western Channel and Bristol Channel) covering UK and EU waters of ICES areas 7e and 7f (HER/7EF)
- Herring (Celtic Sea) covering ICES area 7a south of 52 degrees 30 minutes N, 7g, 7h, 7j and 7k (HER/7G-K).

Horse mackerel

Atlantic horse mackerel, also known as scad, 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-14) 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.

Greater silver smelt

Greater silver smelt is covered by a single biological stock in ICES areas 7 to 10, 12, and 6b.

The relevant TAC management unit is Greater Silver Smelt (Western) covering ICES areas 6 and 7; UK and international waters of 5 (ARU/567). It covers a wider geographic area than the biological stock.

Summary of fisheries and stock status

In recent years (2021–2023), sardines have been the most important of the FMP stocks to UK vessels (based on landed weight and value), with landings considerably higher than for the other species within the FMP area. Horse mackerel landings by UK vessels show large fluctuations, while herring and anchovy are landed in very small quantities. There is currently no commercial fishery for greater silver smelt within the FMP area.

Fishing methods for these stocks vary between stock and country (details provided in the stock-specific sections below). The following gear types are considered within this FMP: pelagic trawls, ring-nets, purse seines, drift nets and static nets. It is important to note that, while some of the stocks in the FMP are occasionally caught as bycatch in demersal trawls, this gear type is not considered part of the target fishery, so has not been scoped into the FMP and supporting assessments.

With sardine, anchovy, and Western Channel and Bristol Channel herring lacking scientific evidence to enable the relevant authority or authorities to assess the stocks against MSY principles, goal 1 of this FMP sets out actions to maintain or increase levels of these stocks. Goal 3 of this FMP contains actions to plan and collect evidence to help improve assessments of these stocks and enable an MSY approach (or a suitable proxy) in the future.

For Celtic Sea herring, Western horse mackerel and greater silver smelt, the available scientific evidence is considered sufficient to enable the relevant authority or authorities to assess the stocks and provide advice in relation to MSY principles. For greater silver smelt, the reference point is a proxy for MSY, whereas those defined for Celtic Sea herring and Western horse mackerel use the MSY approach. Goal 2 of this FMP sets out actions

to contribute to the maintenance or restoration of these stocks to levels capable of producing MSY.

Below is a summary of the current stock status relevant for these stocks. See ICES for information on [ICES stock categories](#):

- sardine is an ICES Category 3 stock. The [current ICES advice](#) suggests the stock size is above I-stat (an index trigger value for biomass safeguard, a precautionary approach reference point)
- there is no stock assessment for anchovy relevant to the FMP area, so there is no estimate of stock size or catch advice available
- Western Channel and Bristol Channel herring is an ICES category 5 stock. Only data on landings or a short time-series of catch are available to inform [the current ICES advice](#). ICES cannot assess the stock and exploitation status relative to MSY and precautionary approach reference points, because information to define reference points is not available
- Celtic Sea herring is an ICES Category 1 stock. The [current ICES advice](#) suggests spawning stock biomass of Celtic Sea herring is currently below MSY B-lim (an MSY reference point below which the stock's productivity is likely to be severely impaired)
- western horse mackerel is an ICES Category 1 stock and was last benchmarked in 2024. The [current ICES advice](#) suggests spawning stock biomass for Western horse mackerel is below MSY B-trigger (an MSY reference point below which the stock is at risk of being overfished) and B-pa (a precautionary MSY reference point designed to provide a safety margin for spawning stock biomass) but above B-lim (an MSY reference point below which the stock's productivity is likely to be severely impaired)
- greater silver smelt is an ICES Category 3 stock. The [current ICES advice](#) suggests the stock biomass index of greater silver smelt is above I-trigger (a threshold for spawning stock biomass below which a stock is considered to be at risk)

For each stock included in this FMP, a summary of the biology and ecology, stock assessments, fishing advice and an overview of the commercial fishery is given in the sections below. Additional supporting information regarding the assessments, input data, and other available information is provided in the evidence statement, where the supporting evidence sources can also be found.

Sardine

Biology and ecology

The abundance and distribution of sardine around the British Isles has fluctuated over the past decade due to changes in sea temperature. They are currently found in the Celtic Sea, English Channel and North Sea. Sardine are thought to be at their northernmost limit in the geographic area covered by this FMP.

Young sardine are often found in estuaries, river mouths and coastal areas. They shift habitats as they grow into adults, moving towards intertidal reefs and subtidal reefs and sediments, up to 250 kilometres (km) from land and as deep as 100 metres (m). Sardine are warm water fish. While they prefer specific water temperatures for spawning (optimally 14°C to 15°C), they can generally live in waters between 8° and 26°C. They are short-lived, grow quickly and mature early, reaching 90% of their maximum length and maturing during their first year. The number of eggs a female can produce in a spawning season can vary and is impacted by environmental conditions and food availability.

Climate change is expected to influence the distribution of sardine, with warming sea temperatures potentially expanding their range further north beyond the FMP. This shift could present new opportunities for the UK and EU fishing industry, while also requiring careful monitoring and adaptive management to ensure sustainable exploitation. Goals 6 and 7 contain actions that consider and respond to these changing conditions and opportunities in FMP waters.

Sardine in the northeast Atlantic have a complex population structure, and uncertainties remain regarding the boundary and degree of mixing between sardine in the Channel and Celtic Seas (ICES area 7) and the Bay of Biscay (ICES area 8). Sardine in the Channel and Celtic Seas have higher growth rates and separate spawning grounds to those in the Bay of Biscay stock, and all age classes are present in both areas.

In 2017, the Channel and Celtic Seas stock was therefore split from Bay of Biscay and treated as an independent assessment unit by ICES. However, genetic studies could not clearly distinguish between Celtic Seas and the Bay of Biscay populations. Collection of such evidence could be included in the research plan and evidence collection actions under goal 3 of this FMP, to help improve the information feeding into stock assessments for this species.

Stock assessment and maximum sustainable yield

There is currently insufficient evidence to provide advice on fishing opportunities in relation to [MSY principles](#) for sardine in the FMP area, so the FMP must set out policies for maintaining or increasing the level of this (goal 1), in line with the obligations of section 6(3)(b) of the Act.

Sardine in the Channel and southern Celtic Seas (ICES area 7) is an ICES Category 3, data limited stock ([see ICES for details on category definitions](#)) assessed on a precautionary approach. This stock assessment unit includes the FMP area but extends beyond the geographical extent of this FMP.

ICES conducts assessments of this sardine stock on a yearly basis, providing precautionary advice based on annual acoustic survey trends from the PELTIC (Pelagic Ecosystem Survey of the Western Channel and Eastern Celtic Sea) survey. The PELTIC survey is conducted by Cefas, which generates an estimate of the abundance of sardine and other pelagic species in the survey area (covering the Western Channel, Celtic Sea,

and Cardigan Bay in ICES areas 7e-f and parts of 7a and 7g). The assessment takes the PELTIC survey results as an index of biomass and generates advice using the [1-over-2 harvest control rule](#).

The 1-over-2 rule is not an assessment of MSY, and the [ICES guidance](#) on the use of this harvest control rule suggests that it does not necessarily lead to MSY exploitation. The guidance implies a decreasing trend of catch options over time after repeated applications, particularly when coupled to the 80% uncertainty cap constraint (as has been used for sardine). Therefore, ICES suggests that this trend-based rule should be considered a provisional harvest control rule with the aim of achieving a better management approach within 10 years. The 1-over-2 rule for this stock has been in place since 2021.

A pelagic self-sampling programme, which was developed as an industry-science partnership between the Cornish Sardine Management Association (CSMA) and Cefas, has been in place since 2017. The main goal of the self-sampling programme was to develop methods to automate monitoring and enable fishing skippers and crew to contribute reliable fisheries-dependent data to the assessment process for sardine stocks. The 8-year time-series of length and weight data is now considered of sufficient duration to be evaluated for inclusion in an improved stock assessment, following MSY-principles, for sardine. This would likely involve upgrading the assessment of the sardine fishery to a constant harvest rate approach (included as an action under policy goal 3 of this FMP).

The [latest ICES advice](#), available at the time of writing, is indicative of a fluctuating but increasing trend in biomass since 2018. Sardine populations naturally fluctuate between periods of high and low abundance, linked to changes in their environment such as water temperature, food availability and quality, and ocean currents. In 2024, sardine biomass for the total survey area was estimated at 410,861 tonnes, the second highest value the survey has ever recorded (see figure 2).

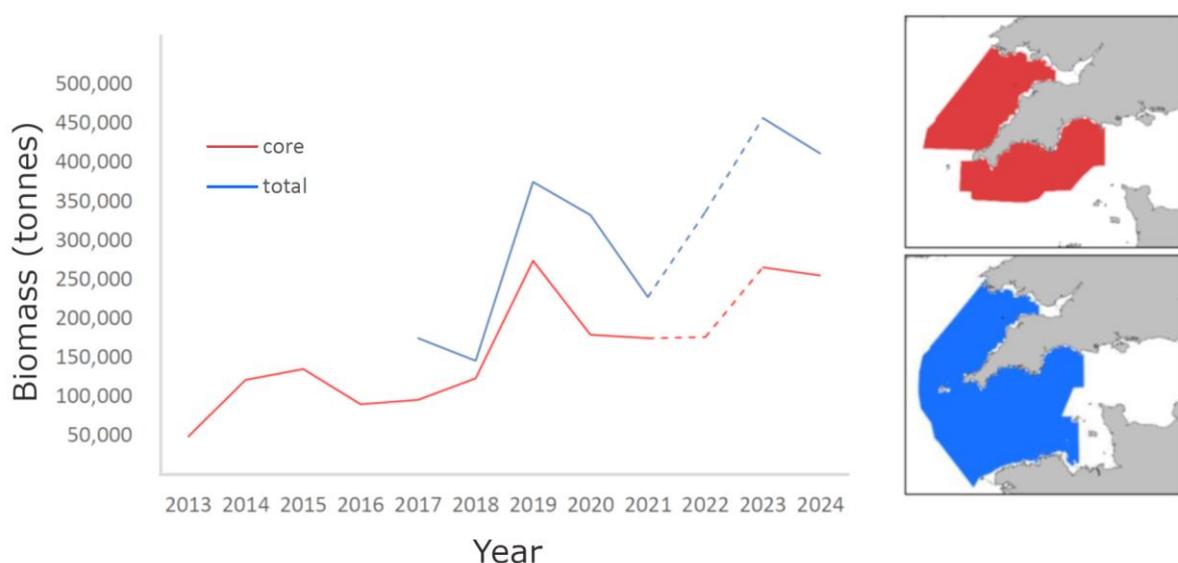


Figure 2. Trends in sardine biomass

Figure 2 shows trends in sardine biomass (tonnes) based on 2 survey areas: 1) the core area includes English waters of the western Channel and Bristol Channel, surveyed consistently since 2013, and 2) the total area includes the core area plus the Isles of Scilly and French waters of the western Channel, surveyed since 2017. Note: in 2022, survey coverage was limited, with the core area estimate only reflecting the western Channel, a smaller area than usual. The total area biomass for 2022 was estimated by extrapolating from the observed biomass in the surveyed area. Figure adapted from the PELTIC survey 2024 Research Vessel Survey Report (RV Cefas Endeavour), published in 2025.

Commercial fishing

Although not managed by a species-specific TAC, ICES provides annual advice on fishing opportunities for sardine relevant to the FMP area.

Between 2013 and 2023 (the most recent data available at the time of writing), a total of 94,280 tonnes of sardines were landed from the FMP area by UK (including Crown Dependencies) and EU vessels (see figure 3) This represents 39% of the total landings (by weight) of all species included in this FMP. From 2016 to 2023, these landings accounted for 92% of the sardines (by weight) landed in the whole of the UK.

The combined annual weight of sardine landings from the FMP area by EU and UK vessels varied over the 10 years, ranging from 4,044 tonnes in 2013 to 13,949 tonnes in 2016 (see figure 3). UK vessels consistently landed more sardines than EU vessels: 4.5 times more by weight, and over 5 times more by value across the period. There was a sharp increase in landings between 2015 and 2016, with weight landed more than doubling and value rising by nearly 80%. From 2016 onwards, UK landings remained consistently high (see figure 3) and were greater than landings of all other species in this FMP. In contrast, EU landings peaked in 2016, but declined sharply after, showing periodic variability from 2019 onwards. Across the full period, sardines represented 16% of the total weight of FMP species landings for EU vessels in the area.

MMO landings data also indicate growth in the UK sardine fishery, with the weight and value of sardines landed by UK vessels in the FMP area increasing between 2013 and 2016 and then remaining consistently high. The highest recorded tonnage by UK vessels was 9,540 tonnes in 2020 and the highest value of annual landings was £3,252,650 in 2023. Despite this growth, the number of UK vessels landing sardines declined from 87 in 2013 to 49 in 2023, with the greatest declines recorded in vessels under 10m.

Vessel length and gear used to target sardine differ between EU and UK vessels. Almost all sardines landed by EU vessels between 2013 and 2023 were caught by vessels over 40m using pelagic trawls (99.9%). Comparatively, most landings by UK vessels (95%) came from vessels up to 15m in length, with the remainder (5%) from vessels over 40m. Purse seine nets accounted for the largest share of landings (tonnes) from UK vessels at 50%, followed by encircling gillnets (35%), and pelagic trawls (8%).

It is important to note that while encircling gillnets have been reported as being used by some sardine fishers, representatives from the fishery noted that this is likely due to unintentional misreporting of gear type. In practice, both purse seine nets and encircling gillnets have been used to record landings from the same gear type, known locally as

'ring-nets', used by members of the CSMA. However, there is no official gear category or code for ring-nets, which are technically classified as purse seine nets.

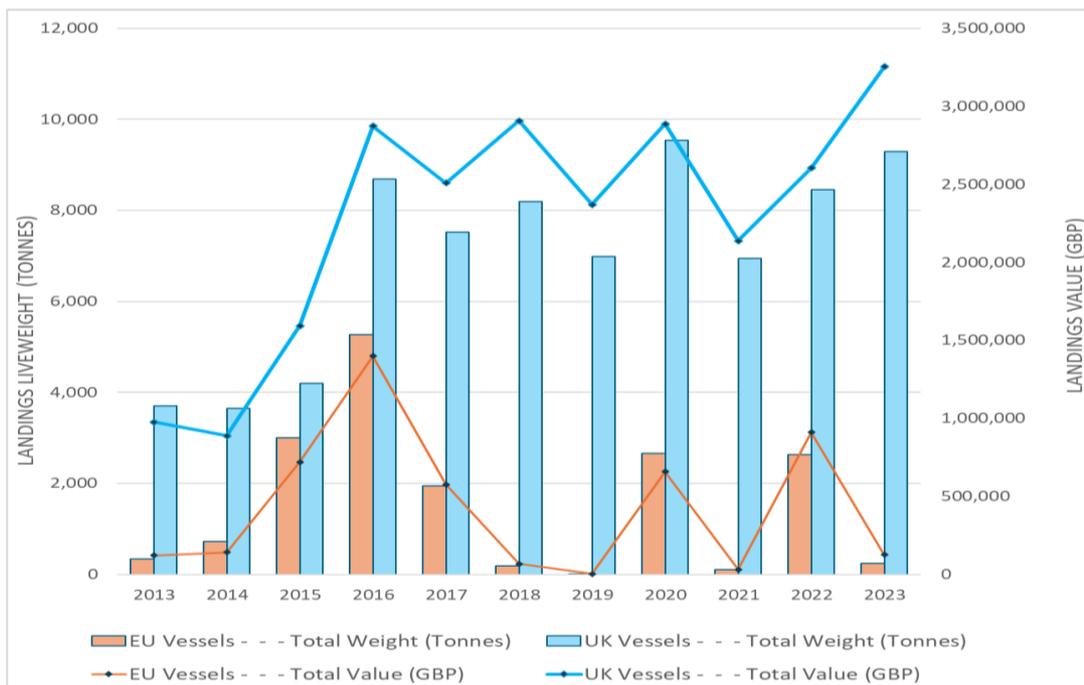


Figure 3. Weight and value of sardine landings

Figure 3 shows the annual total weight (tonnes) and value (GBP) of sardine landings from the FMP area by EU vessels (orange) and UK vessels (blue) from 2013 to 2023.

Cornish sardine fishery

Sardine fishing in the FMP area predominantly takes place within the 6 nautical mile (nm) limit of the southern Cornish coast by means of small vessels (under 15m). The Cornish sardine fishery currently consists of 14 'ring-netters'. Currently, all vessel owners and skippers are members of the CSMA. Over 95% of the sardine caught in the Cornish sardine fishery are caught and processed by members of the CSMA.

The fishery is seasonal, beginning in summer (typically July), with the sardines reaching peak condition (characterised by high fat content) from autumn through early winter. The season usually ends by January or February, when fishing stops due to a decline in fish quality. The fishery operates predominantly after night fall and a fishing trip generally lasts from as little as a few hours to a whole night and involves a period of searching time and at least one net deployment.

The Cornish sardine fishery is the only MSC certified sardine fishery in Europe, and this certification provides a unique selling point for these fish, which the Cornish sardine fishers highlight has added economic value to the product and improved market access. Recertification audits are due to start in 2027, with the current certificate running out in 2028.

Economic and cultural importance

Of the five species included in this FMP, sardine is the most economically important to UK stakeholders at the time of writing. There is significant demand for sardine in the UK. Between 2021 and 2023, 83% of the UK's sardine supply (fish that have been landed or

imported into the UK, as well as fish landed by UK vessels abroad) was destined for the domestic market, with Cornish sardine sold in several major UK supermarkets. Over the same period, sardine imports exceeded exports by £34.3 million.

Sardine fishing particularly plays an important role in Cornwall's economy as it is a significant draw for tourism and supports jobs throughout the supply chain. The annual average price of sardine has been stable (averaging between £303 a tonne and £358 a tonne between 2016 and 2023), providing predictable income for the fishers. The Cornish sardine fishery is seen as a good prospect for new entrants due to the economic viability of the fishery and more sociable working hours than other fisheries: boats typically operate close to shore and undertake relatively short trips. Although fishing takes place at night, fishers explained that during the darker winter months, they can often leave in the early evening and return within a few hours. This routine allows for a better work-life balance than fisheries that require long, offshore trips lasting several days at a time.

During FMP development, stakeholders highlighted key barriers that limit the sardine fisheries current and future potential. These barriers include the current precautionary approach to determining fishing advice for this stock, access to fishing grounds, availability of suitable ports to land into, operational and processing capacity, and potential constraints from other marine activities. Goal 7 of this FMP contains actions that may help to further understand and, where possible, address these barriers to support safe and sustainable growth in sardine fisheries going forward.

Sardines hold significant cultural value in Cornwall. The Cornish sardine ring-net fishery is deeply rooted in history, heritage, and tradition and is important for local identity and way of life. The historic and current importance of the fishery is reflected in local traditions, festivals, infrastructure and art that celebrate sardines. Goal 7 of this FMP contains an action to collaborate with stakeholders to understand how cultural identity and traditional practices in this and other FMP fisheries can be preserved.

Anchovy

Biology and ecology

Anchovy are relatively new to northern waters, and they are thought to be at their northernmost limit in the geographic area covered by this FMP. As detailed in the Evidence Statement, they were traditionally found in the southern North Sea until the early 1930s when their main spawning habitat was lost. After decades of near-absence, anchovy reappeared in the mid-1990s and numbers have increased.

Anchovy grow quickly and live for a maximum of 5 years. They favour warm water temperatures of around 15 degrees C to spawn. Shallow inshore waters warm up the quickest and are therefore favoured by anchovy in these northern areas, but they can live in waters up to 400m deep. After spawning in early summer in the southern North Sea, anchovy are thought to migrate to the deeper waters of the English Channel to overwinter. Anchovy has become more widespread in the Celtic Sea during the autumn.

Stock assessment and maximum sustainable yield

There is currently insufficient evidence to provide advice on fishing opportunities in relation to MSY principles for anchovy in the FMP area, so the FMP must set out policies for maintaining or increasing the level of this stock (Goal 1) in line with the obligations of section 6(3)(b) of the Act.

ICES do not currently provide a stock assessment or advice for anchovy within the FMP area but considers anchovy in northern waters (north of 48 degrees N) to be a distinct unit in the North-East Atlantic. Survey observations have confirmed that post-larval anchovy from the Bay of Biscay have in recent years drifted north into the English Channel where they potentially mix with northern anchovy.

Like sardine, anchovy populations naturally fluctuate between periods of high and low abundance, linked to changes in their environment such as water temperature, food availability, and ocean currents. With no stock assessment, understanding of the health of anchovy in the FMP area is limited but there is evidence that the size at which anchovy reach maturity has been decreasing throughout the North-East Atlantic.

In 2024, the PELTIC survey, reported an anchovy biomass of 13,112 tonnes, the lowest recorded in the time series since 2017. The decline followed a significant increase in anchovy stocks observed in 2023 in the western Channel and Celtic Sea, highlighting the variability of this stock within the FMP area (see figure 4).

Due to the similarities in biological characteristics between anchovy and sardine, it is likely that a stock assessment method and eventually an MSY assessment approach will apply for this stock as is used for sardine. These steps are outlined in goal 3 of this FMP.

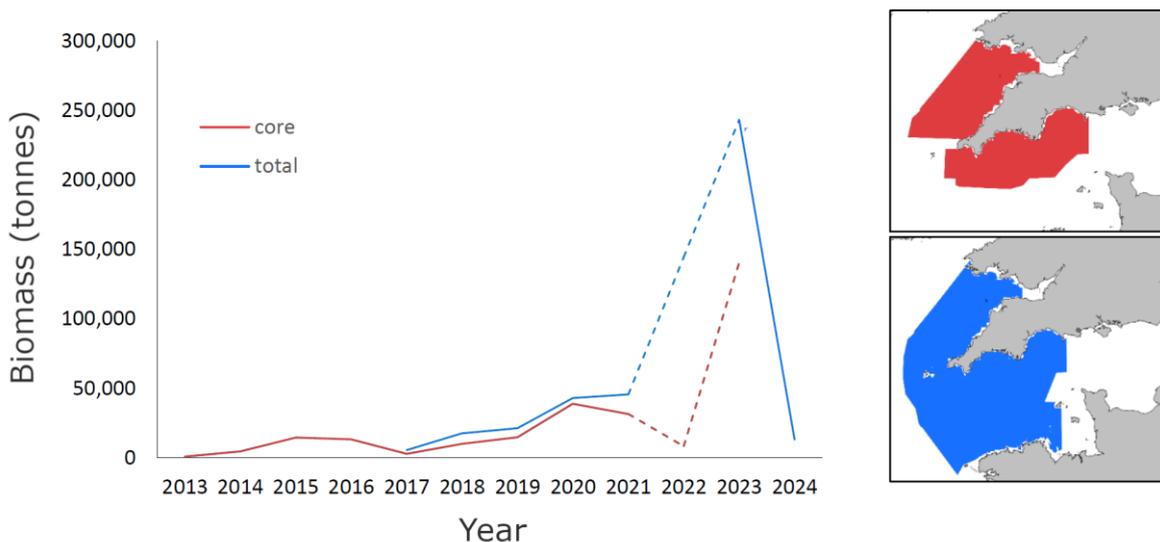


Figure 4. Trends in anchovy biomass

Figure 4 shows trends in anchovy biomass (tonnes) based on 2 survey areas: 1) the core area (shown in red, top right) includes English waters of the western Channel and Bristol Channel, surveyed consistently since 2013, and 2) the total area (shown in blue, bottom right) includes the core area plus the Isles of Scilly and French waters of the western Channel, surveyed since 2017.

Note: no biomass estimate was available for the core area in 2024. In 2022, survey coverage was limited (shown in red and blue dashed lines). The core area estimate only reflects the western Channel, a smaller area than usual. The total area biomass for 2022 was estimated by extrapolating from the observed biomass in the surveyed area. Figure adapted from the PELTIC survey 2024 Research Vessel Survey Report (RV Cefas Endeavour), published in 2025.

Commercial fishing

Anchovy is an emerging but variable fishery in the FMP area, with landings fluctuating significantly between 2013 and 2023 (best available data) (see figure 5). During this time, UK and EU vessels landed a combined total of 3,972 tonnes of anchovy from the FMP area, with UK vessels accounting for 65% of this. UK landings were valued at approximately £2,562,802, while EU landings were valued at £355,976. From 2016 to 2023, landings of anchovy in the FMP area accounted for 99% of the anchovies (by weight) landed in the whole of the UK.

UK landings peaked in 2014 at 785 tonnes, while EU vessels peaked in 2015 at 610 tonnes. Since 2020, landings have remained relatively low for both fleets, with a combined total of 812 tonnes landed from 2020 to 2023. Around 90% of anchovy landed from the FMP area were caught in the English Channel (ICES area 7e), with smaller amounts caught in the Bristol Channel (ICES area 7f) and the Celtic Sea (ICES areas 7g and 7h).

Of the landings (in tonnes) from UK vessels from 2013 to 2023, 92% came from vessels up to 15m in length, with the remaining 8% from vessels over 40m. Pelagic trawls (midwater otter trawl and pair trawl) accounted for the largest share of landings at 43%, used across vessels of various sizes, including those up to 15m and over 40m. Among UK vessels up to 15m, pelagic trawls (almost entirely midwater otter trawls) contributed to 38% of landings, followed by purse seines (31%) and encircling gillnets (21%).

In recent years (2021 to 2023), most (96%) anchovy landings by UK vessels were made into Newlyn by vessels measuring up to 15m in length, using predominantly purse seines and encircling gillnets. Members of the CSMA, who fish from and land into Newlyn, noted that anchovy are sometimes caught in the ring-nets used to target sardine.

Landings by EU vessels between 2013 and 2023 were almost exclusively made by vessels over 40m in length using pelagic trawls (midwater otter trawls and pair trawls), with less than 1 tonne recorded from other gear types. All catches of anchovy by EU vessels within FMP waters were landed into the EU.

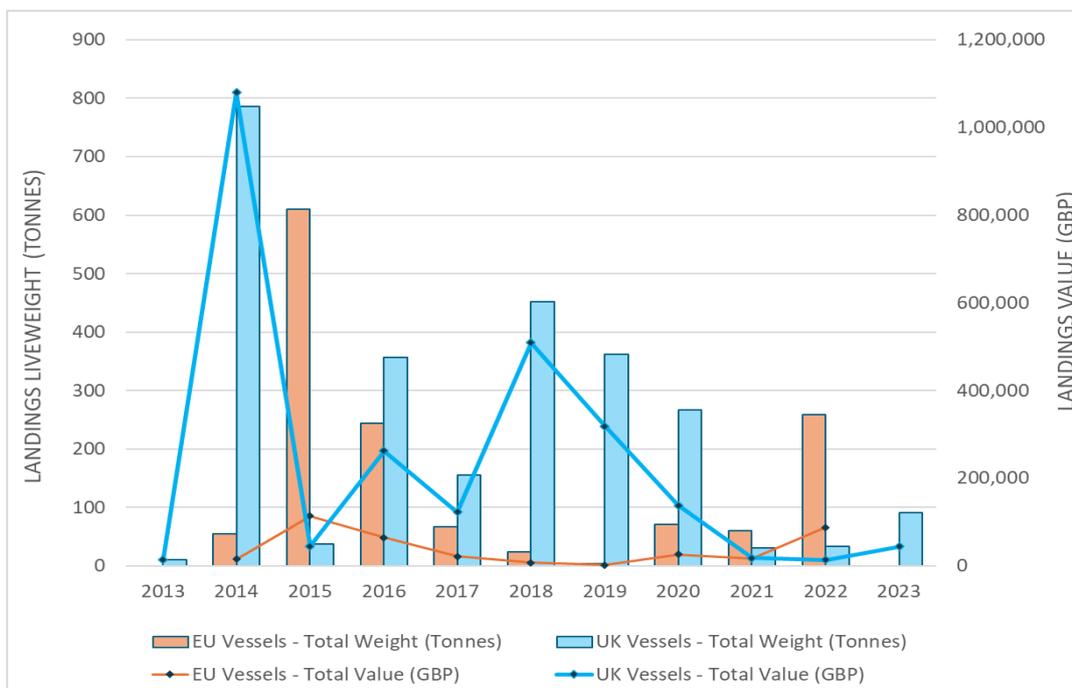


Figure 5. Annual total weight and value of landings

Figure 5 shows the annual total weight (tonnes) and value (GBP) of anchovy landings from the FMP area by EU vessels (orange) and UK vessels (blue) from 2013 to 2023. Only UK total weights and values are presented for 2013 and 2023 due to the absence of EU landings data for these years.

Economic and cultural importance

Between 2021 and 2023, just over half (56%) of the UK’s anchovy supply was destined for the domestic market, and during this period, the UK imported £15.5 million more anchovy than was exported. Although anchovy does not hold the same economic and cultural significance in the southwest of England as sardine, it is both economically and culturally important in parts of Europe such as Spain, Italy, France and Portugal.

Members of the FMP Partnership have expressed that there is interest from domestic buyers and sellers in developing a market for locally sourced anchovy and that the value is considerably higher than for sardine. However, fishers have indicated that anchovy cannot currently be relied upon as a commercially viable fishery. Instead, fishing for anchovy is largely opportunistic, depending on availability rather than consistent targeting. The annual average price of anchovy has also fluctuated noticeably between 2016 and 2023, with lows of £391 a tonne in 2022 and highs of £1,127 a tonne in 2018, making it difficult to have economic stability.

Climate change is expected to influence the distribution of anchovy, with warming sea temperatures potentially expanding their range further north. This could lead to increased presence of anchovy within FMP waters. As a result, there may be growing interest and fishing effort from both UK and EU vessels, especially if anchovy populations become more consistently available. This shift could present new opportunities for the UK and EU fishing industry, while also requiring careful monitoring and adaptive management to

ensure sustainable exploitation. Goal 7 in this FMP contains actions that will enable a better understanding of and help realise future economic and social benefits related to anchovy fisheries in FMP waters.

Herring

Biology and ecology

In the FMP area, herring typically measure 20 to 30cm and live to approximately 7 years of age (with some variation between populations). Celtic Sea herring have the fastest growth in the first year of their life and mature in their second year, while slower growing fish mature in their third year. There is very little understanding of the biology of herring in the Bristol Channel and the western English Channel. While there is data available to potentially quantify growth rates and maturity, plans to do this have yet to be developed. This could be considered within actions under goal 3.

Herring prefer waters between 100 and 150m deep and where there is a lot of zooplankton to feed on. They come together to lay their eggs in batches on the sea floor where there are coarse sediments such as sand, gravel, shells, and flat stone and where the currents or tides are strong (most of the FMP area is likely to provide potential spawning habitat for herring). Herring have a strong sense of hearing and use this to identify their spawning sites based on the different sounds different sediments make.

There are some known important spawning sites for herring in the Bristol Channel. Celtic Sea herring are known to spawn close to the southern Irish coast on grounds consisting of gravel or flat stone. The spawning grounds on the Irish coast are outside of the geographical area of this FMP, but this highlights the importance of considering these FMP stocks in a wider geographical context, as impacts experienced outside of the FMP area could influence the stock health within FMP waters (considered under goal 4 of this FMP). It is known that Celtic Sea herring mixes with adjacent populations, including with Irish Sea herring, but the level of mixing between populations is uncertain.

Stock assessment and maximum sustainable yield

There are 2 stocks of herring relevant to this FMP, and these are described separately in the sections below. However, the following information is relevant to both stocks:

In the absence of human-induced pressures, herring populations naturally fluctuate and can decline to population sizes that are just a fraction of those seen only a few years earlier. Like other FMP species, their abundance and distribution are influenced by environmental factors, including temperature, predator abundance and prey availability, which impact mortality, breeding success and migrations. This makes it likely that ecosystem-based reference points for fishing advice that consider environmental conditions or predator needs, could be more ecologically or environmentally relevant than traditional MSY assessments for herring (considered under goal 4 of this FMP).

Although herring stocks naturally fluctuate, historical overfishing, combined with low recruitment has put significant pressure on herring populations, contributing to declines and potentially reducing the resilience of stocks to other environmental and human-induced pressures. In addition, evidence suggests that the current poor stock health is not solely due to natural fluctuations. ICES highlighted the increase in human activities that negatively impact herring spawning habitats, such as marine aggregate extraction, dredge spoil dumping, and wind turbine installation, as a cause for concern. Recruitment is expected to remain below the level needed to sustain a fishery (below the biological reference point B-lim) in 2025 and 2026.

Bristol Channel and Western Channel herring

There is currently insufficient evidence to provide advice on fishing opportunities in relation to MSY principles for Bristol Channel and Western Channel herring, so the FMP must set out policies for maintaining or increasing the level of this stock (goal 1) in line with the obligations of section 6(3)(b) of the Act.

Bristol Channel and Western Channel herring is an ICES Category 5 stock (where only data on landings or a short time-series of catch are available to inform fishing advice) This is not considered a suitable proxy of MSY. ICES cannot assess the stock and exploitation status relative to MSY and precautionary approach reference points, because information to define reference points is not available. ICES provided [advice on herring](#) for the first time for this stock in 2025.

Despite the recent ICES stock assessment, understanding of the health of herring in the Bristol Channel and Western Channel is limited. Stakeholders in the FMP Partnership group raised concerns about the health of and threats to the Bristol Channel herring stock. This information is presented in detail in the supporting evidence statement.

It is unlikely that sufficient data or information will be able to be collected to allow for an assessment of MSY, or a suitable proxy, for this herring stock, within the 6-year review timeframe for this FMP. However, there is data and information, that if collected could benefit the stock assessment (outlined under goal 3 of this FMP).

Celtic Sea Herring

There is currently sufficient evidence to inform an assessment of MSY for herring in the Celtic Sea, so the FMP sets out policies that at least contribute to the maintenance or recovery of the stock to levels capable of producing MSY (goal 2) in line with obligations of section 6(3)(a) of the Act.

Celtic Sea herring is an ICES category 1 stock. ICES provide annual assessments and advice based on the MSY approach with precautionary considerations.

The Celtic Sea herring stock has declined substantially from a high in 2012 as older cohorts have grown big enough to be targeted and caught and there has been below average recruitment (the amount of young herring surviving to reach maturity and

reproducing). The [latest ICES advice](#) (available at the time of writing) indicates low biomass and fishing mortality, with spawning stock biomass below MSY B-trigger (an MSY reference point below which the stock is at risk of being overfished), B-pa (a precautionary MSY reference point designed to provide a safety margin for spawning stock biomass), and B-lim (an MSY reference point below which the stock's productivity is likely to be severely impaired).

The provision of ICES advice for Celtic Sea herring is dependent on data provided through commercial fishing samples. A monitoring TAC is often used to enable this data collection to continue¹.

Commercial fishing

Western Channel and Bristol channel herring and Celtic Sea herring are managed using quotas set jointly by the UK and EU. These quotas and their respective shares for the EU and UK, are set out in the EU-UK Trade and Cooperation Agreement (TCA). Quota limits set by total allowable catches (TACs) are agreed in a Written Record of consultations between the EU and UK² which take place annually before the start of the fishing season. The goals and actions set out for managing herring in UK waters in this FMP have been developed taking into account the requirements of the TCA and cooperation with other coastal States on fish stocks that occur jointly in their respective waters.

Western Channel and Bristol Channel herring

Between 2013 and 2023, UK vessels landed approximately twice as much Western Channel and Bristol Channel herring (in tonnes) from FMP waters as EU vessels, totalling 2,041 tonnes and valued at approximately £663,560. The majority (89%) of these landings came from vessels up to 15m in length, using a range of gear types (with the highest contributions to landings coming from encircling gillnets, midwater otter trawls, and purse seines), with the rest (11%) almost exclusively coming from over 40m vessels using pelagic trawls (Figure 7).

The highest UK vessel landings occurred between 2013 and 2016, peaking in 2014 at 455 tonnes. In 2017, UK landings fell sharply to 50 tonnes and remained low (ranging between 13 and 66 tonnes) except for a notable increase in 2022 when landings reached 206 tonnes. Of that total, 200 tonnes were landed by over 40m vessels. The total number of active UK vessels across all size categories declined significantly over the decade, with the numbers of vessels in 2023 approximately 3 times lower compared to 2013. The largest declines, in terms of number of active vessels, were seen in vessels 8m and under.

¹ [EU requested ICES provide advice](#)

EU vessels landed Bristol Channel and Western Channel herring from FMP waters intermittently between 2013 and 2023, with a peak in 2014 at 412 tonnes. Landings then dropped sharply in 2015 to 99 tonnes and remained low (ranging between 0 and 55 tonnes) except for a notable spike in 2019, when 260 tonnes were recorded. Nearly all (99.9%) landings from EU vessels came from vessels 40m and over in length using pelagic trawls.

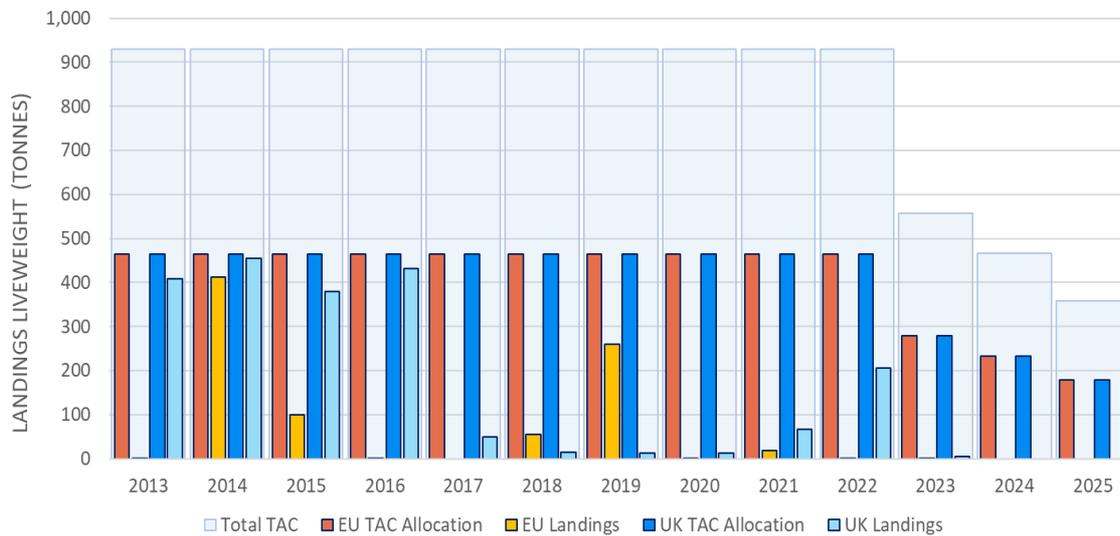


Figure 6: Trends in landings and Total Allowable Catch (TAC) of Bristol Channel and Western Channel herring

Figure 6 shows the annual total weight (tonnes) of Bristol Channel and Western Channel herring (HER/7EF) landed from the FMP area and the total allowable catch (TAC, tonnes) for EU and UK vessels between 2013 and 2025. The TAC for Bristol Channel and Western Channel herring covers ICES areas 7e-f, with the FMP area covering English and Welsh waters of ICES areas 7e-h. The light grey bars represent the combined total TAC. The EU TAC is represented by the red bars, and the EU landings are represented by the orange bars. The UK TAC is represented by the darker blue bars, and the UK landings are represented by the light blue bars. All values are displayed in tonnes. Only total TAC, UK TAC, and EU TAC are shown for 2024 and 2025 due to the absence of landings data for these years.

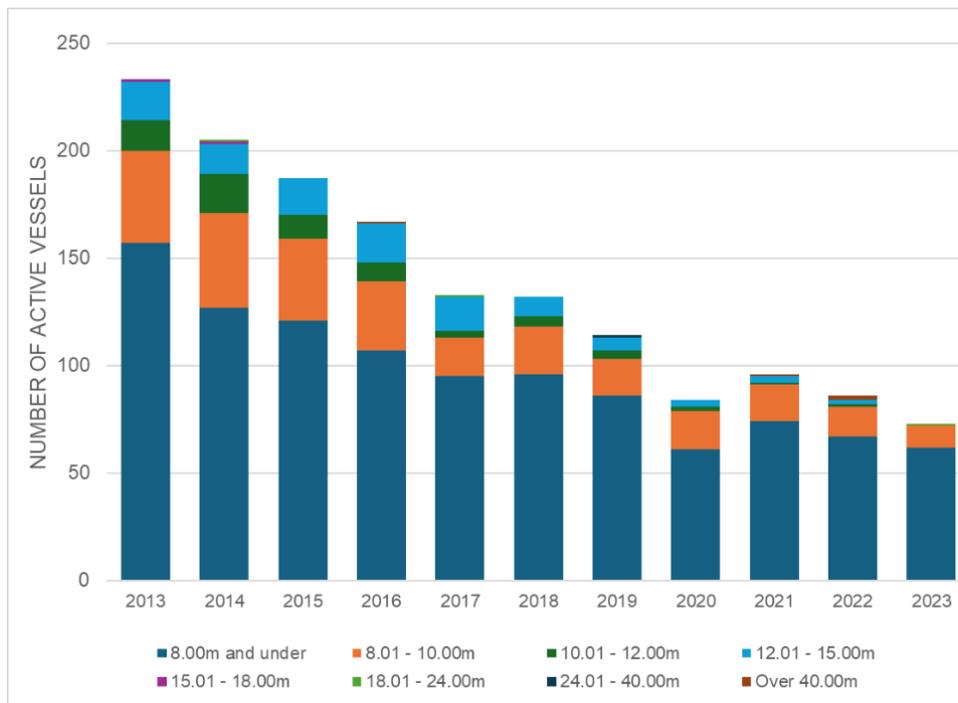


Figure 7. Number of active UK vessels in the FMP area

Figure 7 shows the number of active UK vessels (unique vessel registration numbers) landing Bristol Channel and Western Channel herring from the FMP area between 2013 and 2023, categorised by vessel size. Each coloured bar represents a different vessel size category.

Celtic Sea herring

As noted above, a monitoring-only TAC has been agreed annually with the EU for HER/7G-K since 2020³.

Historically, EU vessels have comprised the majority of the landings of Celtic Sea herring from within the FMP area (see figure 8). Between 2013 and 2023, landings of Celtic Sea herring from the FMP area by UK and EU vessels showed a general decline, with landings consistently below allocated TACs. Across this period, the EU fleet was comprised of mainly vessels between 24m to 40m (51%), with the remaining from over 40m vessels (27%) and vessels 18m to 24m (22%). The main gear type used by EU vessels was pelagic trawls (more than 99%). Almost all (96%) of landings by UK vessels came from vessels over 40m in length using pelagic trawls.

³ [Written Record of fisheries consultations between the United Kingdom and the European Union for 2024](#)

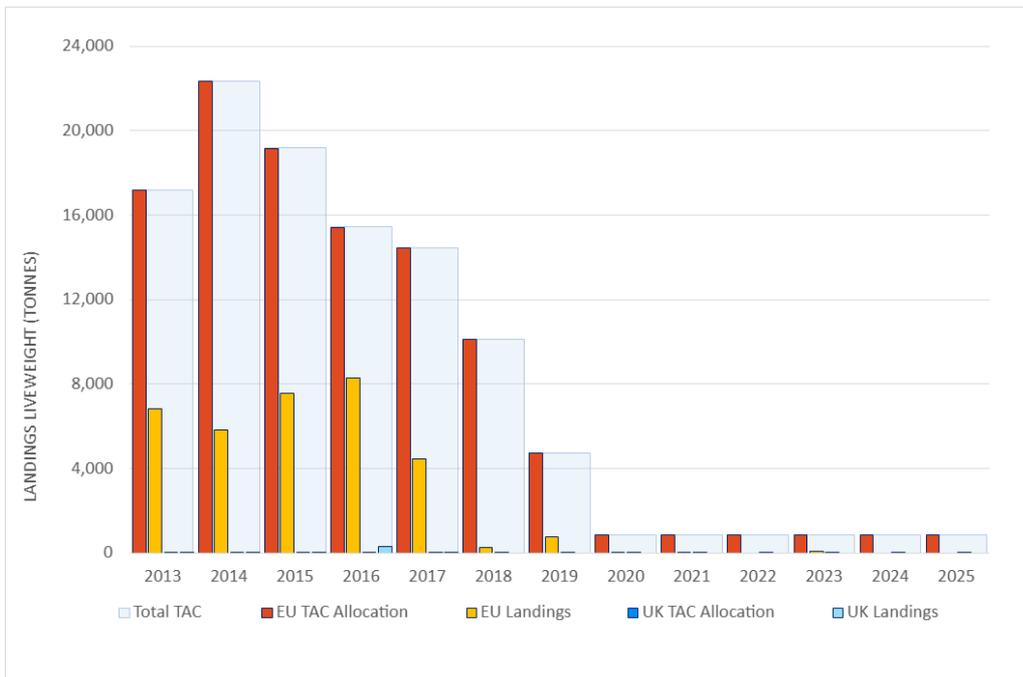


Figure 8: Trends in landings and Total Allowable Catch (TAC) of Celtic Sea herring.

Figure 8 shows the annual total weight (tonnes) of Celtic Sea herring (HER/7G-K) landed from the FMP area and the Total Allowable Catch (TAC, tonnes) for EU and UK vessels between 2013 and 2023. The TAC for Celtic Sea herring covers ICES areas 7a south of 52 degrees 30 minutes N and 7g-k, with the FMP area covering English and Welsh waters of ICES areas 7e-h. The light grey bars represent the combined total TAC; the EU TAC is represented by the red bars, and the EU landings are represented by the orange bars; the UK TAC is represented by the darker blue bars, and the UK landings are represented by the light blue bars. All values are displayed in tonnes. Only total TAC, UK TAC, and EU TAC are shown for 2024 and 2025 due to the absence of landings data for these years.

Economic and cultural importance

Herring has long been a key fishery in the UK (for details see the evidence statement). Between 2021 and 2023, 78% of the UK's herring supply was exported. During this period, the UK exported £15 million more than it imported, the highest among the FMP species. Between 2016 and 2023, average herring prices fluctuated greatly, ranging from £439 a tonne in 2016 to £1,323 a tonne in 2023.

Herring in the Bristol Channel has been landed for over 400 years. Now just a handful of under 10m vessels fish herring using traditional methods, typically drift nets from small wooden boats or using fixed stake nets. These traditional fisheries hold significant cultural value for the local communities in areas where they operate from, such as Clovelly and Minehead. This is evidenced by an annual herring festival held in Clovelly in November, the time of year when the village celebrates the coming of the "Silver Darlings" (the local name for herring). The festival celebrates and promotes the herring by hosting a variety of herring-based food and craft stalls, as well as exhibits and activities showcasing the

history of herring. Under 10m fishers can access the English non-sector/inshore quota allocation for herring, managed by the MMO through monthly catch limits.

Traditional herring fisheries have seen major declines, coinciding with declines in stocks and threats posed by local developments resulting in the loss of cultural identity and heritage. Goal 7 of this FMP contains an action to understand how this could be addressed through collaboration with stakeholders and Goal 4 contains actions to better understand the risks to herring spawning habitats, which may be limiting the stock's recovery.

Horse mackerel

Biology and ecology

Horse mackerel live up to 40 years of age and can grow up to 60cm in length. They live and feed both near the seafloor and in the water column, typically found at depths between 100–200 metres, but can be found as deep as 1,000 metres, which is deeper than other species covered by this FMP.

Adult horse mackerel migrate long distances between spawning, feeding, and overwintering areas. During the winter and daytime, adults form large, dense shoals, close to the seabed. The main spawning grounds for the western population of horse mackerel is the Celtic Seas, where spawning takes place overnight from April to July. Young horse mackerel remain in the Celtic Seas and Channel before joining adult migrations when they reach maturity. The growth, migration, and spawning activity of horse mackerel is affected by water temperature.

There are 2 genetically different populations of horse mackerel that live around the British Isles. The western population, found within the FMP area, is the largest of the 2 and mixes with the smaller northern population from the North Sea in the Channel. However, exactly where and how much these populations mix, is uncertain (considered under goal 3 as future evidence collection for this stock).

Stock assessment and maximum sustainable yield

Western horse mackerel is an ICES Category 1 stock. [Advice on horse mackerel](#) is provided annually based on the MSY approach, noting that advice for this stock goes well beyond the geographical range of this FMP. As there is sufficient evidence for MSY, the FMP sets out policies that at least contribute to the maintenance or recovery of the stock to levels capable of producing MSY (Goal 2) in line with the obligations of section 6(3)(a) of the Act. The stock was benchmarked in 2024, and the stock boundaries were changed to include catches from ICES divisions 3a and 4a.

Biomass fell below B-lim (an MSY reference point below which the stock's productivity is likely to be severely impaired) in 2022 and 2023, which led to a zero-catch advice for 2023 and 2024. Following the benchmarking in 2024, the [ICES stock assessment](#), also

published in 2024, advised zero catch for the stock as the assessment suggested biomass remained below B-trigger (an MSY reference point below which the stock is at risk of being overfished) and B-pa (a precautionary MSY reference point designed to provide a safety margin for spawning stock biomass), but was above B-lim, despite reduced fishing mortality in recent years.

ICES advice suggests there is evidence that Western horse mackerel mixes with North Sea horse mackerel in the English Channel (ICES area 7e), although the details of exactly where and when the mixing occurs are uncertain. At the time of writing, fishing pressure on the North Sea stock is above F-lim, with spawning stock biomass below all MSY biological reference points used (B-trigger, B-pa, and B-lim). ICES has highlighted that genetic stock identification of horse mackerel needs to be further developed, with a view to potentially realigning the stock assessment areas. A long-term research plan was formulated by ICES during the benchmarking process to address this and other issues relevant for the assessment of the various horse mackerel stocks (this is supported under goal 3 of this FMP).

Commercial fishing

A total allowable catch (TAC) is set for Western horse mackerel by the UK and EU. The TAC is split by applying respective shares for the EU and UK set out in the EU-UK Trade and Cooperation Agreement (TCA). Quota limits set by TACs are agreed in a Written Record of the consultations between the EU and UK⁴ which take place annually before the start of the fishing season. The goals and actions set out for managing horse mackerel in UK waters in this FMP have been developed taking into account the requirements of the TCA and cooperation with other coastal States on fish stocks that occur jointly in their respective waters.

In 2023 and 2024, the TAC was designated as bycatch only in response to zero catch advice. However, following the 2024 ICES benchmark assessment and subsequent advice demonstrating the improved status of the western stock, directed fisheries were permitted. Landings from the FMP area fluctuated between 2013 and 2023 in line with the agreed TAC, with EU vessels accounting for the majority, reflecting their larger quota share. Horse mackerel represented 50% of all species within this FMP landed by EU vessels, compared to just 10% for UK vessels. Between 2013–2023, EU vessels landed approximately 52,367 tonnes (valued at approximately £21,579,137), mostly (97%) from vessels over 40m in length, using pelagic trawls. The highest EU landings (tonnes) from FMP waters occurred in 2021 (13,496 tonnes), primarily from the Celtic Sea (ICES areas 7g and 7h; 48%) and Western English Channel (ICES area 7e; 39%). A smaller proportion (13%) was caught in the Bristol Channel (ICES area 7f). All catches of horse mackerel by EU vessels within FMP waters were landed into the EU.

UK landings totalled 9,062 tonnes (valued at approximately £4,919,566) over the decade, with a peak of 1,901 tonnes in 2022. These mostly (97%) come from over 40m vessels using pelagic trawls. From 2017–2023, UK uptake of its total quota averaged 43%, with FMP waters accounting for just 11% of that. In recent years, Western horse mackerel quota has also been traded between the UK and EU.

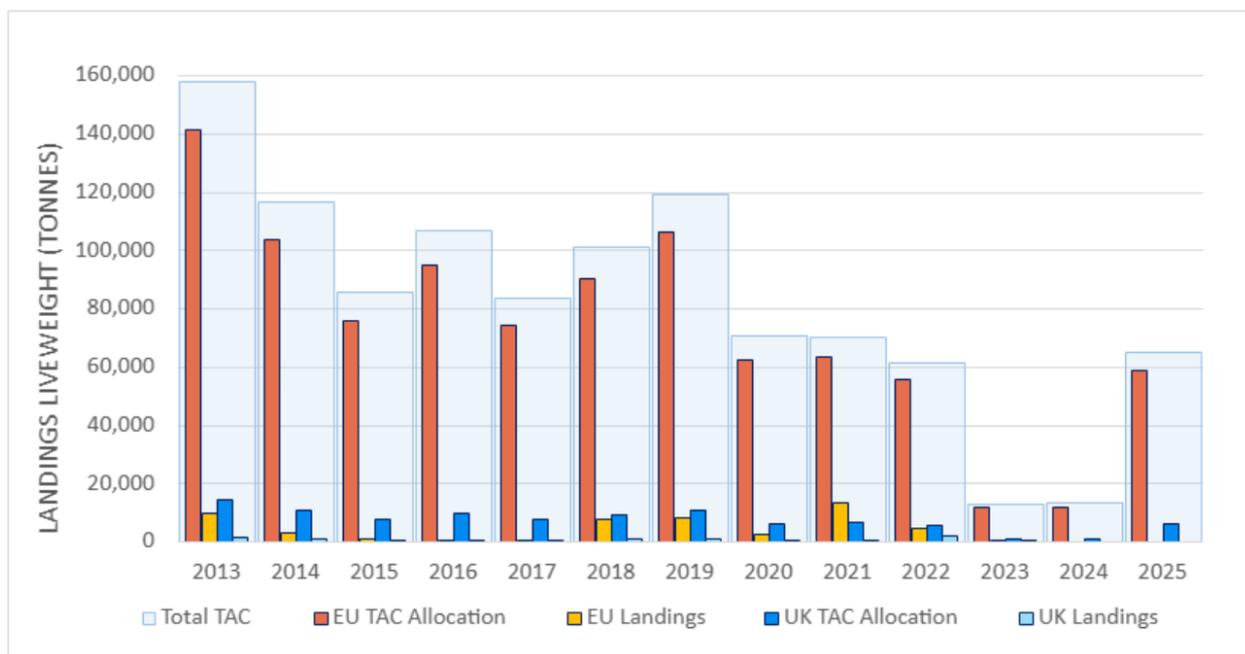


Figure 9: Trends in landings and Total Allowable Catch (TAC) of Western horse mackerel.

The figure shows the annual total weight (tonnes) of Western horse mackerel (JAX/2A-14) landed from the FMP area and the Total Allowable Catch (TAC, tonnes) for EU and UK vessels between 2013 and 2025. The light grey bars represent the combined total TAC; the EU TAC is represented by the red bars, and the EU landings are represented by the orange bars; the UK TAC is represented by the darker blue bars, and the UK landings are represented by the light blue bars. All values are displayed in tonnes. Only total TAC, UK TAC, and EU TAC are shown for 2024 and 2025 due to the absence of landings data for these years.

Economic and cultural importance

Western horse mackerel has relatively low economic and cultural importance in the UK within the FMP area compared to other commercially valuable species, with 80% of the catch in recent years (2021 to 2023) being exported. The annual average price of horse mackerel has fluctuated noticeably between 2016 and 2023, with lows of £334 a tonne in 2016 and highs of £884 a tonne in 2020.

Despite commercial significance in certain EU countries such as Spain and Portugal, overall consumption within the EU is relatively limited, with the majority of catch exported outside the EU.

Greater silver smelt

Biology and ecology

Greater silver smelt is a slow growing, late to mature, deep-water fish that can live up to 30 years of age. Usually, they can be found either near the sea floor or in the water column, with a preference for waters around 250m deep and between 6°C and 11°C in temperature. They can however be found in waters 1,440 metres deep and in water temperatures down to 1 degrees C. Given that the FMP area is predominantly shallower than 200m, it is unlikely to provide the most favourable habitat for greater silver smelt, and their presence in the area is therefore expected to be limited.

Stock assessment and maximum sustainable yield

ICES provides advice every 2 years for greater silver smelt in subareas 7 to 10 and 12, and division 6b (other areas). It is a category 3 (data limited) stock and advice is based on the MSY approach. Therefore, the FMP must set out policies that at least contribute to the maintenance or recovery of the stock to levels capable of producing MSY (goal 2) in line with the obligations of section 6(3)(a) of the Act.

The latest [ICES stock assessment](#), published in 2025, suggests that in the large assessment area, greater silver smelt biomass has decreased since 2016, and fishing mortality has increased since 2019, and it is currently above the reference point.

Commercial fishing

Greater silver smelt is managed using quotas set jointly by the UK and EU. These quotas and their respective shares for the EU and UK, are set out in the EU-UK Trade and Cooperation Agreement (TCA). Quota limits set by total allowable catches (TACs) are agreed in a written record of consultations between the EU and UK⁵ which take place annually before the start of the fishing season. The goals and actions set out for managing greater silver smelt in UK waters in this FMP have been developed taking into account the requirements of the TCA and cooperation with other coastal States on fish stocks that occur jointly in their respective waters.

The biological stock advice does not accurately match the TAC area for greater silver smelt. Cefas therefore provide an annual interpretation applying the advice to TAC areas. Catch advice for two biological stocks (aru.27.6b7–1012 and aru.27.5b6a) overlap with the relevant TAC area for greater silver smelt.

There were no recorded landings of greater silver smelt from the FMP area by either EU or UK (including Crown Dependency) vessels between 2013 and 2023, except for in 2016

when EU vessels landed 60 kilograms from demersal trawls in the western Channel (ICES area 7f). Stakeholders involved in the FMP Partnership reported no commercial interest in the stock.

Although greater silver smelt is not currently targeted within the FMP area, future changes in stock distribution, markets, or fleet behaviour could change this. This FMP should ensure it remains responsive to any emerging interest in the fishery as part of the ongoing FMP review cycle.

Economic and cultural importance

There is no evidence of direct economic or cultural importance of greater silver smelt within the FMP area as there is no fishery, however, the ability to trade out quota of this stock for other species that may hold greater economic or cultural importance suggests there may be some indirect value associated with this stock. Between 2021 and 2024, the UK traded out 1090 tonnes of greater silver smelt quota to the EU (Germany).

Recreational fishing

Available data and stakeholder engagement suggest that direct recreational interest in the species covered by this FMP is currently limited. Indirectly however, recreational fishers identified the importance of the FMP species as prey for other recreationally valued species such as bass.

Species-specific data from the UK Sea Angling Diary programme show that horse mackerel are the most frequently recorded of the FMP species to be caught recreationally, though catches remain low and are mostly from the western English Channel (ICES area 7e), with most fish returned to the sea. Recreational catches of herring are also recorded in low numbers, primarily in the western English Channel, with nearly half of the catches reported to be released. Anchovy have been reported only rarely (just seven fish between 2016 and 2023), while sardine and greater silver smelt are either not recorded or grouped under broader categories, making species-specific insights difficult. Given its deep-water habitat, greater silver smelt is unlikely to be a common target for recreational fishers.

While current recreational interest in these species appears low, this could change over time. The relevant authorities will continue to monitor recreational engagement with these fisheries and account for any emerging trends as part of its ongoing review cycle.

Environmental and ecosystem considerations

In addition to the requirement of the Act, FMPs are subject to legal and environmental obligations arising from legislation such as [Habitats Regulations](#), [UK Marine Strategy](#), and the [UK Marine Policy Statement](#), the [Environment Act 2021](#), [Marine and Coastal Access Act 2009](#), the [Environmental Principles Policy Statement](#), the [Environment \(Wales\) Act 2016](#), and the [Well-being of Future Generations \(Wales\) Act 2015](#). Other relevant legislation and commitments the UK has made under international agreements and declarations are outlined in the JFS.

A range of current monitoring and evidence programmes⁶ gather data to inform about the risks of fishing activity to both MPAs and achievement of Good Environmental Status (GES)⁷ relevant to this FMP. Natural England, Natural Resources Wales (NRW) and Joint Nature Conservation Committee (JNCC) were commissioned provide advice to inform the development of the Celtic Sea and Western Channel pelagic fisheries. They were asked to provide information on the risks arising from fisheries on:

- the designated features of MPAs in English and Welsh waters
- UK Marine Strategy (UKMS) Descriptors in English and Welsh waters

The SNCB advice received during FMP development makes recommendations for this FMP to reduce associated risks to designated features (often designated species) of MPAs (arising from fishing activity outside site boundaries) and to UKMS descriptors. This advice was considered when developing the policy goals and actions contained within this FMP, and the advice is explored in detail in the supporting environmental report.

Bycatch

The evidence relating to bycatch for fisheries included in this FMP mostly relates to the types of gear used, as opposed to being specific to the target species. As described above, the species included in this FMP are targeted by multiple gear types, with some crossover of the main gears used between stocks, so understanding the specific bycatch risks for each fishery covered by this FMP is limited. Some assumptions can be made on the specific impacts relating to targeting each pelagic species based on the most common gear types used for these fisheries. The bycatch risks for gears used to target FMP stocks are described below.

Bycatch of commercial species

Pelagic trawls (including mid-water otter trawls and pair trawls), purse seines and encircling gill nets (both of which can be used to describe 'ring-nets' - see sardine section above for explanation) are the main gear types used to target stocks covered by this FMP. Vessels using pelagic trawls and ring-nets generally have low bycatch of other commercial fish species, although sprat can be an occasional bycatch and fisheries using pelagic trawls have the potential to be restricted by bycatch of herring due to the limited TAC for this species.

⁶ [Marine strategy part two: UK marine monitoring programmes - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/614242/marine_strategy_part_two_uk_marine_monitoring_programmes.pdf)

⁷ [Introduction to UK Marine Strategy - Marine online assessment tool \(cefas.co.uk\)](https://www.cefas.co.uk/marine-strategy/)

The FMP Partnership highlighted that Atlantic blue fin tuna can also be caught as bycatch in ring-nets when targeting sardine. There are restrictions in England around how much blue fin tuna bycatch can be landed and sold (detailed in [bluefin \(BFT\) by-catch rules within the commercial fishery](#)) and a full prohibition in Welsh waters to land and sell bluefin tuna.

Other gears within the scope of this FMP include drift and static nets, but these are much less frequently used (see commercial fishing sections above). Each of these gears also generally have low bycatch of other commercial fish species. Mackerel and the occasional whiting have been noted as bycatch in drift nets when targeting herring.

Bycatch of sensitive and protected species

Fisheries for FMP species may interact with a number of sensitive and protected species (those that are either designated features of MPAs, either inside or outside of MPA boundaries, or are considered descriptors of GES under the UKMS). Addressing bycatch of sensitive and protected species is an important criterion of achieving GES in the UKMS. Much of the fishing activity has little or no contact with the seabed but, with some gear types, there is the potential to generate impacts in MPAs designated for highly mobile species or water column features. Any such interactions inside sites are assessed and managed by the competent authorities: these being the MMO and the Inshore Fisheries and Conservation Authorities (IFCAs) in England and Welsh Government and Natural Resources Wales (NRW) in Wales.

Results from the Bycatch Monitoring Programme suggest that bycatch risks for sensitive and protected non-target species are much lower for pelagic trawls, ring-nets and drift nets compared to other gears scoped into this FMP (such as static nets). Although static nets represent a high risk to cetaceans and seabirds through bycatch, the use of static nets is negligible for fisheries covered in this FMP, based on reporting information on the capture of the FMP species in the FMP area.

Although information regarding bycatches of endangered and threatened species is limited for the fisheries covered in this FMP, evidence collected during FMP development suggests seabirds and seals frequently interact with gears such as ring-nets. It is important to note that, while some interactions with these sensitive species can result in mortality through bycatch (particularly noted for seabirds at certain periods within the fishing season) not all interactions with these sensitive species result in bycatch or harm. For example, seals have been observed by fishers entering ring-nets and exiting again once they have fed on some of the fish within the net. Increased reporting of bycatch would help to achieve a more robust assessment of the risks of bycatch for these fisheries and would help address some limitations of the Bycatch Monitoring Programme. Nevertheless, results from the Bycatch Monitoring Programme suggest that bycatch risks are much lower for these gears compared to other gears scoped into this FMP (such as static nets – see above for catch reporting information that suggests limited use of static gears for this FMP).

There is also some evidence to suggest that sensitive and protected fish species such as salmon and shad are at risk of being caught as bycatch in pelagic trawls, however evidence suggests catch rates are likely to be small.

Advice received from the SNCBs as part of this FMP's development highlighted that actions to improve the bycatch evidence base and improvements to mitigation measures are required. Goal 5 in this FMP contains actions relating to improvements of monitoring and mitigation of bycatch for all fisheries within this FMP.

Wider food-web considerations

Pelagic fish are important forage fish in marine food webs, transferring energy from smaller organisms that they eat (phytoplankton and zooplankton) to the larger predators that eat them such as other fish, marine mammals, and seabirds. Many of these predators have populations classed as vulnerable or declining and are protected by law (e.g. designated under the Conservation of Habitats and Species Regulations 2017 or classified as UKMS Descriptors). Many of these predators are thought to be generalist feeders and therefore feed on FMP species opportunistically. However, herring in particular, are noted as being an important prey source for harbour porpoise (a designated feature of the Bristol Channel Approaches MPA, called Dynesfeydd Môr Hafren in Wales).

SNCB advice received as part of this FMP's development highlighted there is a moderate risk of prey depletion of important species that these designated species depend on. Further, ecosystem models developed during FMP evidence gathering suggest that a depletion in some FMP species can trigger ecosystem-wide responses (see Evidence Statement for details, results vary between species). Therefore, it was recommended by the SNCBs and the FMP Partnership that there is additional consideration of predator needs, and exploration of suitable ecosystem-based approaches to the management of these fisheries given the increased ecological risk if there was a failure to reach MSY across the range of forage fish included in this FMP.

Further, due to the importance of the FMP pelagic species as prey for marine predators, it is likely that ecosystem-based reference points for fishing advice, such as those that consider environmental conditions or predator needs, could be more ecologically or environmentally relevant than traditional MSY assessments. This has informed the development of actions under policy goal 4 of this FMP, which is centred around identifying the most appropriate ecosystem-based management approaches for stocks in the FMP, including an action to consider future Management Strategy Evaluations to help determine appropriate ecosystem-based reference points for these stocks that better align with the wider goals of this FMP.

Climate change

Changing climatic conditions have the potential to affect the fishing industry and the wider marine environment, with consequences and potential opportunities for associated

benefits and beneficiaries of related fisheries. It is therefore important to be able to incorporate information on the effects of climate change on FMP stocks into stock assessments and fisheries advice so that the management of these stocks can be sufficiently adaptive and precautionary.

The climate change objective in the Act is that the adverse effect of fish and aquaculture activities on climate change is minimised, and that fish and aquaculture activities adapt to climate change. It ensures that future fisheries management policy can, where appropriate, adapt to any future impacts of climate change on the UK fishing industry to support climate adaptive fisheries management. Details of the expected impacts of climate change on the species and fisheries within this FMP are included in the description of the FMP species, stocks and fisheries section above and in the supporting Evidence Statement.

Fishing activity can contribute to climate change through carbon emissions (such as from fuel use and gear impacts on carbon storage). Under the climate change objective in the Act, and Net Zero ambitions under the Climate Change Act 2008, the UK governments are committed to reducing greenhouse gas emissions within the fishing fleet, and to improving resilience to climate-driven impacts across the sector. By mitigating and reducing the impacts from changing climatic conditions, this will contribute to climate change, ecosystem and national benefit objectives outlined in the Act.

Although contributions of these FMP pelagic fisheries to climate change are expected to be lower compared to other types of fishing activity (such as demersal trawling, which disturbs the blue carbon stores and experience elevated costs from towing etc), the Act's climate change objective emphasises the need to minimise these impacts and adapt fisheries management accordingly.

This FMP contains an action under Goal 6 to reduce the impact of fishing on climate change and support the fishing industry to adapt to the impacts of climate change.

Other pressures on FMP stocks

During the development of this FMP, stakeholders raised concerns about the impact of wider human-induced pressures on the health of the FMP stocks. This included a wide range of activities that can introduce pressures like loss or degradation of breeding habitat and visual or noise disturbance, and including activities such as dredging, development, and other types of fishing not included in the fisheries of focus in this FMP.

Work was undertaken to compile a risk register, which highlights the exposure to, and likely severity of interactions with, any human activities that introduce relevant pressures in the FMP area that can impact these stocks and their important habitats (see further information on this work in the Evidence Statement). Where there is already evidence that suggests impacts of other pressures on the species and fisheries within this FMP, this has been included in the description of the stocks and fisheries sections above. However,

there is more work needed to explore the evidence supporting some of the risks highlighted in the risk register work.

Goal 4 includes actions aimed at increasing understanding around the risks and opportunities for FMP stocks from other fisheries and non-fishing pressures and activities, and work to reduce negative impacts where possible.

Fisheries management

Harvest strategy

The stocks covered by this FMP are a mixture of NQS (sardine, anchovy) and stocks managed by TACs, which determine fishing opportunities (Western Channel and Bristol Channel Herring, Celtic Sea herring, horse mackerel, greater silver smelt).

These NQS are not subject to species-specific TACs under the current UK-EU consultation framework. However, they are included within the broader NQS tonnage limits established under the TCA. The management approach for these stocks is based on principles laid out in section 4.2.2. ('Non-quota stocks') of the JFS.

These stocks managed by TACs are shared with the EU and are therefore subject to agreement via the TCA. The management approach for these stocks is based on principles of international fisheries negotiations which are laid out in section 4.2.1. ('Fishing opportunities') of the JFS. Through international fisheries negotiations, the UK seeks to agree outcomes which reflect the objectives of the Act relating to sustainable TAC setting, where possible within the negotiating forum.

One of the principles of international fisheries negotiations is that the UK government will seek to increase the overall number of stocks fished at MSY, consistent with the best available scientific advice and taking into account best available evidence on the effects of fishing activity. Other principles include references to the UK's wider international obligations for the conservation and sustainable use of the marine environment, and the need to apply an ecosystem-based approach.

Further considerations should be made on a stock-by-stock basis to consider opportunities to minimise the negative impacts of fishing on non-target species. For instance, management decisions on target fisheries for FMP species may significantly impact other species which are bycatch or depend on the FMP species as prey. The policies within this FMP consider these points.

Fishing opportunities for stocks managed by TACs may be determined under section 23 of the Act for the purpose of complying with the UK's international obligations to determine the UK's fishing opportunities, including under the TCA and the United Nations Convention on the Law of the Sea.

In line with the Act, sustainable fishing means taking into consideration environmental, social and economic factors, and ensuring these are appropriately weighed and balanced along with the best available scientific advice when agreeing TAC levels.

Current fisheries management

The sections below cover a description of the different types of regulations in place that are relevant to the FMP stocks and gears covered in the FMP area. However, they do not refer to the effectiveness of any elements of these regulations. Studies assessing the effectiveness of individual or combined pieces of management regulation are lacking for fisheries operating in these areas. A medium to long-term action has been added under goal 1 that would look to address this. For more details of what is covered below, see the evidence statement.

Current UK technical measures

Technical regulations which impact fisheries considered within this FMP are listed in the table below.

Table 1. Current regulations that affect this FMP's fisheries

Restrictions	Gear type	Area	Regulation
Minimum conservation reference size (MCRS) of: <ul style="list-style-type: none"> • 11 cm for sardine • 12 cm (or 90 individuals per kilogram) for anchovy • 20 cm for herring • 15 cm for horse mackerel 	All	UK waters of North Western Waters	Assimilated Regulation EU 2019/1241 (retained in UK law)
A minimum mesh size of 16mm	Pelagic trawls	UK waters of North Western Waters	Assimilated Regulation EU 2019/1241 (retained in UK law)
A minimum mesh size of 50mm	Static and drift nets (gill, trammel and drift nets)	UK waters of North Western Waters	Assimilated Regulation EU 2019/1241 (retained in UK law)
Mandatory use of acoustic deterrent devices	Bottom-set gillnets and entangling nets operated by vessels 12m and over	ICES areas 7d-j	Assimilated Regulation EU 2019/1241 (retained in UK law)

Landing obligation

The landing obligation applies to all fishing vessels. It stipulates that all quota species (of all sizes) must be landed and counted against quotas unless exemptions apply. Within the FMP area, herring, horse mackerel, and greater silver smelt are subject to TAC limits and therefore fall under this obligation.

Sardine and anchovy are NQS and therefore the landing obligation does not apply.

Statutory guidance on the technical conservation and landing obligation (discard ban) regulations, including how the rules apply, exemptions, selling undersize fish, reporting requirements and quota management are available on GOV.UK: [Technical Conservation and Landing Obligation rules and regulations from 2022 onwards](#).

Regional inshore fisheries management

The IFCAs in England and the Welsh Government in Wales are responsible for producing byelaws to manage fisheries up to the 6 nautical mile limit in their respective jurisdictional waters. IFCAs have a duty to sustainably manage the inshore marine environment and have general duties in relation to conservation and biodiversity.

Devon & Severn IFCA, Cornwall IFCA and Southern IFCA have byelaws relating to netting activity and restrictions on vessel size. Isles of Scilly IFCA's district is also within the FMP area and has a restriction on vessel size. Further details of current byelaws which may manage, or contribute to the management of, pelagic fisheries and their environment within the FMP area are available on the IFCA and Welsh Government websites:

- [Southern IFCA](#)
- [Devon & Severn IFCA](#)
- [Cornwall IFCA](#)
- [Isles of Scilly IFCA](#)
- [Welsh Government](#)

Sardine voluntary local inshore fisheries management

Alongside management put in place by IFCAs, the CSMA, formed in 2004, have a [Code of Conduct](#) that members (vessel owners and skippers) agree to abide by. These measures contribute to the achievement of MSC accreditation of the Cornish sardine fishery. The CSMA Code of Conduct includes an annual catch limit for the sardine fishery around the Cornish coast (detailed above), as well as limits on membership, vessel length, headline length, and mesh size requirements. Goal 1 in this FMP contains an action that considers whether it would be feasible and beneficial to expand the geographic range of any of these management measures to the scale of the FMP area.

Current monitoring and enforcement

There are various monitoring programmes relevant to fisheries covered by this FMP.

The UK Bycatch Mitigation Initiative (BMI) and Clean Catch programme aim to reduce bycatch of sensitive marine species in UK fisheries. BMI provides a strategic framework focused on monitoring, identifying hotspots, mitigation measures, and international collaboration. Clean Catch complements this by uniting stakeholders to develop and test practical solutions through trials and industry engagement.

Remote Electronic Monitoring (REM) has been installed on one large pelagic trawl vessel as part of the early adopter phase of Defra's REM programme. Once implementation questions have been adequately addressed, REM will be made mandatory on all pelagic trawl vessels over 24m fishing in English waters. The Welsh Government will continue to explore the use of technologies such as REM, to further safeguard stocks and the environment to ensure sustainability. This will be proportionate and appropriate to the nature and profile of the fishing fleet in Wales.

Some inshore vessels, including some members of the CSMA, voluntarily use REM and CCTV for internal compliance, sharing footage with Cornwall IFCA when required. They also participate in Clean Catch and Insight360 trials, which use AI to monitor wildlife interactions.

In addition to the above, routine control and enforcement, including other types of monitoring (such as vessel monitoring systems) and inspections of landings, is the responsibility of the MMO and IFCA's (in England) and the Welsh Government (in Wales).

In 2022 Wales was the first part of the UK to introduce iVMS for under 12m vessels fishing in the Welsh zone. In May 2025, the MMO required all English under-12m vessels to use inshore vessel monitoring systems (I-VMS), transmitting location data every three minutes. The goal is to extend this to all under-12m vessels in English waters. The use of vessel monitoring systems (VMS) has been mandatory for all over-12m vessels since 2012.

Since 2021, MMO licence conditions require reporting of marine mammal injury, death, or bycatch due to fishing activity within 48 hours of a trip. There is also a legal requirement to record discards of fish species that are not subject to the landing obligation. This includes prohibited species listed in fishing vessel licences, such as sensitive elasmobranchs like basking sharks and porbeagle sharks. The legal requirements to self-report bycatch does not extend to seabirds.

Goal 5 under this FMP supports the consideration of pelagic fisheries in existing bycatch monitoring and mitigation initiative, and improvements in data robustness. Changes to monitoring and enforcement may be required in the future.

FMP policies

Eight policy goals have been identified to help achieve the overall vision stated for the FMP, and link to the Act objectives. These goals align with the high-level partnership priorities that were identified and co-developed by the FMP Partnership by considering relevant legislation, a detailed evidence baseline, and evidence gaps (see evidence statement for details on the process used for goal development).

Policy goals 1, 2, and 3 address the requirements under section 6(3) of the Act. For stocks where the evidence is insufficient to allow for an assessment of MSY (sardine, anchovy, and Western Channel and Bristol Channel herring), goal 1 outlines the actions required to maintain or increase levels of these stocks. For stocks where the evidence is sufficient to allow for an assessment of MSY (Celtic Sea herring, horse mackerel, and greater silver smelt), goal 2 outlines the actions required to at least contribute towards maintaining or restoring stock biomass to levels capable of producing MSY. Goal 3 outlines the steps necessary to work towards obtaining the scientific evidence necessary to enable an assessment of the stock's MSY to be made for those stocks that cannot currently be assessed at this level.

Achieving MSY alone is unlikely to be sufficient to deliver the whole vision for the FMP (for example, responding to wider ecosystem, economic and social considerations), therefore the remaining policies aim to address these. Policy goal 4 works to identify and work towards implementation of the most appropriate ecosystem-based approaches to manage the fisheries within this FMP, and understanding risks and opportunities from wider ecosystem considerations, which is encouraged in the Act and the JFS and will support the achievement of GES.

As set out in the JFS, sustainable fishing means environmental, economic, and social considerations are appropriately balanced when managing our fisheries, to benefit present and future generations. Therefore, policy goals 5 to 8 cover broader themes, which can contribute to achieving sustainable fishing for these stocks. These include understanding and minimising impacts on non-target species, including bycatch, associated with fishing for these stocks (goal 5), reducing the impact of fishing on climate change and supporting the fishing industry to adapt to the impacts of climate change (goal 6), improving understanding of economic, social and cultural benefits (goal 7), and continuing collaborative and adaptive management (goal 8).

Together, the FMP goals set out actions for achieving a sustainable approach to managing these fisheries and enhancing effective management for the long term. They have been developed with the understanding that some of these stocks are jointly managed and therefore that overall fishing opportunities on the associated stocks are determined through international negotiations (herring, horse mackerel and greater silver smelt). There is potential for short-term tension between some of the goals, and there are also various methods of delivery, from government implementation to scientific studies and industry led measures and research. Furthermore, the actions within the goals themselves will require

prioritising across FMPs to ensure appropriate effort is concentrated towards stocks that are most at risk of overexploitation.

Policy goal 1: harvest sardine, anchovy and Western Channel and Bristol Channel herring stocks sustainably, with the overall aim of maintaining or increasing levels of the stocks

Rationale

For stocks where the evidence is currently insufficient to assess MSY (sardine, anchovy, Western Channel and Bristol Channel herring), section 6(3)(b) of the Act requires the FMP to set out policies for maintaining or increasing the level of these stocks. These policies must be developed using the precautionary approach as defined in the section 1(10) of the Act. This goal aims to address these requirements by considering the following:

For sardine and anchovy (which are NQS), evidence suggests that the current scale of fishing for both stocks and the current voluntary measures in place for the Cornish sardine fishery is enabling sustainable harvesting of the stocks at the local scale. However, across the whole FMP area, the evidence has highlighted concerns around the extent to which fishing mortality is managed, particularly as stock distributions shift with climate change, which could lead to changing interest and fishing effort. Two actions in the medium to long-term are proposed to address this.

There is no MSY level assessment for the Western Channel and Bristol Channel herring stock, but TAC has decreased in recent years and there is very little fishing pressure on this stock. Using the best available advice to determine fishing opportunities, as outlined in the actions below, will contribute to increasing levels of this stock (along with wider ecosystem-based management actions considered under goal 4, such as those that consider avenues to protect key herring spawning habitats).

Feasibility and impacts of any management measures proposed for implementation will be considered. Any recommendations for implementation from these medium, to long-term goal 1 actions will also need to be considerate of priorities across all FMPs, in terms of the most pressing needs to implement any new measures for FMP stocks

Actions to help achieve this policy goal: short term (1 to 2 years)

- for Western Channel and Bristol Channel herring, continue to determine fishing opportunities informed by the best available scientific advice
- for Western Channel and Bristol Channel herring, continue to work with Coastal State partners through international negotiations with the aim of restoring or increasing the sustainable harvesting of this stock

Actions to help achieve this policy goal: medium to long term (more than 3 years)

- consider whether to expand the geographic range of any of the current local-scale technical measures used for NQS to the scale of the FMP area. This could include the voluntary measures used by the CSMA and any relevant local technical measures implemented by the Welsh Government, MMO or IFCA
- consider whether to move to managing sardine (and possibly later, anchovy) through quota allocation, alongside the existing voluntary measures in place for these stocks
- consider a broader review of effectiveness of the management in place for each stock, in terms of how it contributes to achieving the wider FMP goals

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

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

Policy goal 2: harvest Celtic Sea herring, horse mackerel and greater silver smelt stocks sustainably, with the overall aim of maintaining or restoring biomass of the stocks above the level capable of producing MSY or a suitable proxy

Rationale

For stocks where there is sufficient available evidence to assess MSY (Celtic Sea herring, Western horse mackerel, and greater silver smelt), section 6(3)(a) of the Act requires the FMP to specify the policies which at least contribute to restoring or maintaining the stock at MSY. This goal aims to address these requirements.

The aim for Celtic Sea herring and Western horse mackerel is to restore the biomass of these stocks to levels capable of producing MSY. As the fishing opportunities for these stocks are determined through international negotiations, and the EU holds the majority of the quota allocation, measures to restore the biomass of these stocks will likely be determined through international negotiations. Actions under goal 4 of the FMP that consider ecosystem-based management approaches and potential avenues to protect key habitats for these species will also contribute to the restoration of these stocks.

For greater silver smelt evidence gathered suggests the current management is considered sufficient for sustainable management for this stock within the FMP area. The marine ecosystem is however, a dynamic environment and future changes may be required for this stock. This will be considered as this FMP is monitored and reviewed.

Actions to help achieve this policy goal: short term (1 to 2 years)

- for each stock outlined in this goal, continue to determine fishing opportunities informed by the best available scientific advice
- for each stock outlined in this goal, continue to work with Coastal State partners through international negotiations with the aim of restoring or maintaining the biomass of stocks

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

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

Policy goal 3: seek to improve the evidence base for all stocks, including to allow for an assessment of MSY or a suitable proxy where necessary

Rationale

Section 6 (3) of the Act outlines that FMPs must specify whether the available scientific evidence is sufficient to enable the relevant authority or authorities to make an assessment of the stock's MSY. If the evidence is not sufficient, the FMP must specify the steps (if any) that the relevant authority or authorities propose to take to obtain the scientific evidence necessary to enable an assessment of the stock's MSY to be made.

This goal aims to strengthen the evidence base for stock assessments and fishing advice, moving towards obtaining an assessment of MSY or a suitable proxy for those stocks that do not currently have such an assessment (sardine, anchovy, and Bristol Channel and western Channel herring). There is a specific short-term action relating to stock assessment methods for sardine, which would make use of currently available data to feed into a management strategy evaluation to enable an MSY-approach assessment of the stock.

While the primary aim is to improve the scientific basis for management decisions, this action may also help maintain MSC certification for the Cornish sardine fishery, which is an

outcome that contributes to the broader economic viability and stability of the sector. This goal also covers the collection and use of further evidence and historical data, where appropriate, to improve the quality of assessments for anchovy and Western Channel and Bristol Channel herring stocks, which could contribute to working towards an assessment of MSY in the future (although for each of these stocks, reaching an assessment of MSY is unlikely to be achieved within the timeframe of this FMP due to the lack of data currently available).

This medium to long-term action also covers stocks that already have an MSY assessment or suitable proxy, but where significant evidence gaps remain (Celtic Sea herring, western horse mackerel and greater silver smelt). For example, better understanding of stock mixing and life-history will lead to increased accuracy in assessments and advice, especially considering uncertainties around stock boundaries.

To do this, collaborative work is needed to understand what data is already being/could be gathered by government agencies, industry and/or academia, to support these actions. For example, it is likely that existing workstreams within Defra (the development of the FMP Evidence Strategy, which is being developed at the FMP programme level) will contribute to the completion of these actions. It is important to note that these ambitions will be prioritised across the whole FMP delivery package, and that these suggestions are considerations of how to enhance existing management to meet the vision of this FMP.

Actions to help achieve this policy goal: short term (1 to 2 years)

- for all stocks consider outlining research needs for producing or improving stock assessments where needed
- consider development of the current harvest control rule for sardine into the constant harvest rate method to enable an MSY-approach assessment of the stock

Actions to help achieve this policy goal: medium to long term (more than 3 years)

Continue to support evidence collection for improving stock assessments and ensure that available data is provided to the relevant assessment working groups.

Specifically, this action could consider:

- developing stock assessment methods and fishing advice using the existing PELTIC survey in English and Welsh waters and industry collected data to move towards an MSY-approach assessment of the stock (anchovy)
- the use of egg data from surveys within stock assessments (for sardine and anchovy)
- improved evidence to inform stock delineation and mixing (particularly for herring in the Bristol and Western Channel, sardine and horse mackerel),
- developing a better understanding of climate change risks, impacts and opportunities (to all stocks)
- the use of historical fisheries data, where appropriate

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

- sustainability objective
- precautionary objective
- scientific evidence objective
- ecosystem objective
- climate change objective

Policy goal 4: identify and support implementation of ecosystem-based fisheries management approaches appropriate for pelagic fisheries in the Celtic Sea and Western Channel

Rationale

Section 10(1) of the Act requires national fisheries authorities to exercise its functions relating to fisheries and fishing in accordance with the policies contained in the JFS. The JFS outlines that the national fisheries authorities will take an ecosystem-based approach to managing our fisheries. This will also support the achievement of GES and the wider environmental, economic and social considerations of the FMP.

This goal considers wider ecological, environmental, social and economic factors, including both fishing and non-fishing pressures on stocks in this FMP, and recognises the changes these factors may cause to the health of stocks. The goal also considers evidence collection focussed on understanding and reducing the wider environmental impacts of fishing.

The focus for this goal is around developing an understanding of the most suitable ecosystem-based fisheries management approaches for these fisheries and building a plan for future implementation of these approaches, where possible. Ecosystem models developed during the evidence gathering phase of this FMP could help clarify the most relevant ecosystem-based management strategies to consider (see evidence statement for details).

Actions to help achieve this policy goal: short term (1 to 2 years)

- incorporate evidence collection to support ecosystem-based approaches into the research needs (as outlined in goal 3). This will help support the incorporation of broader ecological, environmental, social and economic factors into stock assessments and fishing advice and reducing environmental impacts of fishing
- explore avenues to protect and enable recovery of habitats that have been identified as important for herring from the pressures that pose risks to them

Actions to help achieve this policy goal: medium to long term (more than 3 years)

- support work to undertake Management Strategy Evaluations for stocks in this FMP that consider ecosystem interactions and work to implement the management strategy that best meets goals of the FMP
- improve understanding of interactions between FMP stocks and adjacent stocks, particularly where mixing occurs (for example, between western and North Sea horse mackerel), or where mixing is uncertain (for example, between Irish Sea herring and herring stocks covered by this FMP)
- where possible, improve evidence base on the ecosystem role and function of FMP species to support an improved understanding of the most appropriate ecosystem-based management approach for these stocks
- where appropriate, work to identify further important fish habitats for FMP stocks and the key pressures that pose risks to them
- continue to update the established evidence base on key pressures and opportunities to FMP stocks and the wider ecosystem they function within, from outside of fishing activity
- work closely with relevant overlapping FMPs to better understand and reduce the threats of other fishing gears to the important fish habitats of this FMP's species

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

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

Policy goal 5: understand and reduce the impacts of FMP fisheries on non-target species, including by minimising and where possible eliminating sensitive species bycatch

Rationale

The Act and JFS commits the fisheries policy authorities to account for, and seek to minimise, impacts on non-commercial species. This includes minimising potential harm due to bycatch and discarding as well as entanglement and ghost fishing. This will also support the achievement of GES.

SNCB advice, stakeholder expertise, and evidence collected during FMP development highlight potential impacts from these pelagic fisheries, including bycatch (of seabirds,

marine mammals and non-target fish), discarding, and indirect impacts on the wider food-webs. However, evidence gaps and data limitations prevent a comprehensive understanding of the extent of these impacts and uncertainty around the most appropriate route to address the issues.

For example, the FMP Partnership raised concerns about a lack of robust bycatch data for seabirds, cetaceans, seals, sharks, tuna, salmonids, and other commercial and sensitive fish species. This goal aims to support and ensure the fisheries for pelagic species are considered within existing monitoring and mitigation initiatives and increase understanding of these issues enabling a long-term strategy to minimise, and where possible prevent, wider impacts.

Short-term actions under this goal recognise and support ongoing efforts to monitor and mitigate bycatch, including by the national Bycatch Mitigation Initiative and Clean Catch programmes as well as recognising and using data collected by smaller-scale voluntary initiatives such as those undertaken by the CSMA. The actions highlight the need to consider the findings of these initiatives for the FMP fisheries specifically, because the appropriateness of different bycatch monitoring and mitigation methods will vary between and within fisheries.

This context-specific understanding is needed to inform the development of policies or measures aiming to improve bycatch monitoring and mitigation. Relevant methods for bycatch monitoring may include self-reporting, observers, and use of REM, while deterrent/mitigation methods such as acoustic deterrent devices, passive acoustic devices, visually detectable nets, gear switching, time-specific spatial controls, and the voluntary measures currently used by the CSMA, could be considered.

Work to understand the appropriateness of these measures could consider factors such as appropriateness for vessel size, gear type, and fishing location (for example, within MPAs, overlap with sensitive species' distribution).

Actions in the medium to long-term could help to prioritise where measures would be most effective in reducing bycatch.

Actions to help achieve this policy goal: short term (1 to 2 years)

- continue to support, and ensure these fisheries are considered within, existing bycatch monitoring and mitigation programmes and initiatives
- consider an assessment of different bycatch monitoring methods and how they apply to the gears prevalent in these fisheries
- consider an assessment of the appropriateness of methods for deterring or mitigating bycatch of sensitive mobile species for FMP fisheries

Actions to help achieve this policy goal: medium to long term (more than 3 years)

- improve the understanding of bycatch for pelagic fisheries, including by making use of existing data where possible

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

- sustainability objective
- scientific evidence objective
- ecosystem objective
- bycatch objective

Policy goal 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 goal 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:

- how carbon emissions can be reduced in a sustainable way
- the most appropriate methods for incorporating information on predicted climate change impacts on stocks into stock assessments and advice on fishing opportunities
- the likely impacts of climate change on fish stocks and fishing communities and the scale and nature of change required to adapt

We know that there will be changes to the distribution and size composition of the stocks within this FMP as a result of climate change, but the overall impacts are not yet fully understood. 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.

Actions to help achieve this policy goal: medium to long term (more than 3 years)

- collaborate across the UK and internationally on further evidence and analysis to understand the impact of climate change on the stocks in this FMP and develop options for how these fisheries may adapt to climate change impacts in the future
- consider the most appropriate mechanism for integrating information on the impacts of climate change and climate variability on stocks and fisheries into fisheries management, including stock assessments and fishing advice
- improve understanding of how fishing for FMP species contributes to climate change and reduce or prevent impacts on the climate where possible

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

- sustainability objective
- climate change objective
- scientific evidence objective

Policy goal 7: Improve understanding of, and help realise the economic, social and cultural benefits of, pelagic fisheries included in this FMP

Rationale

As set out in the JFS and the Act, the fisheries policy authorities hold an ambition to support a modern, resilient, and environmentally responsible fishing industry and to enable fisheries to continue to deliver social and economic benefit to coastal communities to benefit present and future generations. This includes sustainable fisheries management that balances environmental, economic, and social factors, ensuring economic viability without overexploiting stocks. The JFS notes the scope of an FMP may be extended as appropriate, to consider wider fisheries management issues covering environmental, social, and economic concerns.

Given this FMP could lead to measures requiring regulatory change in the future, it is necessary to consider the capacity of fishers to adapt alongside other economic and environmental factors. This is particularly relevant for the inshore fleet, where evidence suggests impacts of fisheries management are often felt more greatly. The short-term action under this goal focusses on working with stakeholders to better understand and capture these challenges.

Fishing for the stocks within this FMP supports livelihoods holds cultural significance. These fisheries have the potential to generate substantial benefits for future generations of local, rural communities. The medium to long-term actions under this goal aim to improve understanding and support the realisation of the social, economic and cultural benefits of these fisheries, particularly for culturally important, small-scale traditional herring fisheries in the Bristol Channel and the inshore sardine fishery in Cornwall. Evidence suggests that

these fisheries are deeply rooted in history, heritage, and tradition and are important for local identity and way of life, leading to the second of these actions under this goal.

Actions also include identifying, and where possible, addressing barriers (regulatory or otherwise) to fishing opportunities for current and future generations. These include declining or consistently low quotas due to declining stock health, access to fishing grounds, operational and processing capacity, and potential constraints from other marine activities. Other existing and developing data sources such as the Commercial Fishing Social Survey should be built on here, where possible.

Finally, a broader value chain perspective is encouraged to explore safe and sustainable growth opportunities, where appropriate. Economic viability depends on factors like consumer demand, availability and retention of labour, and access to processing infrastructure and markets. UK consumer demand for species like horse mackerel is low. Even with consumer demand (such as for sardine), access to suitable ports and the capacity of the processing industry can act as a bottleneck. Understanding these barriers will be the first step to addressing them where possible.

Actions to help achieve this policy goal: short term (1 to 2 years)

Continue to work with the inshore fleet targeting FMP stocks to better understand and capture the challenges they face and their needs in relation to fishing opportunities for FMP stocks.

Actions to help achieve this policy goal: medium to long term (more than 3 years)

- where possible, gather additional evidence of the social, economic and cultural benefits of the fisheries associated with the FMP, accounting for the wide range of beneficiaries
- collaborate with stakeholders to help preserve cultural identity and traditional practices in FMP fisheries, particularly in relation to traditional small-scale herring fisheries in the Bristol Channel and inshore sardine fisheries in Cornwall
- support the sustainability of the industry by collaboratively exploring ways to ensure equitable access to fishing opportunities for current and future generations
- explore ways in which capacity could be increased in the industry through supporting safe and sustainable growth in these fisheries and associated value chains, where appropriate

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

- sustainability objective
- ecosystem objective
- national benefit objective

- equal access objective

Policy goal 8: facilitate a collaborative and adaptive management approach to support fair, effective, and transparent decision-making for sustainable and resilient pelagic fisheries

Rationale

The use of best available evidence and scientific advice, transparent decision making and partnership working, are listed in the JFS as core principles that will underpin delivery of the policies contained in the JFS. This FMP reflects these principles through taking a natural capital approach, which included the establishment of the FMP Partnership and has encouraged transparency throughout the process by facilitating discussions about evidence and decision-making processes. This was well received by stakeholders across government, industry and NGOs.

To evaluate the effectiveness of this approach, a developmental process evaluation was established. The first action under this goal is to share its findings with stakeholders and the wider FMP programme to inform future FMP development and highlight opportunities and challenges in applying this approach more widely.

Working collaboratively ensures ecological, social, and economic factors are reflected in decision-making. Actions under this goal aim to strengthen transparency and integrate FMP delivery with broader marine policy, including planning, licensing, and conservation. This will support knowledge sharing and adaptability, with collaboration embedded across implementation, monitoring, and review. This may be through continuation and expansion of the FMP Partnership, or through other forums potentially coordinated across multiple FMPs in a regional context, or focused on pelagic fisheries in the area, and other policy areas that affect them.

Actions to help achieve this policy goal: short term (1 to 2 years)

- share key lessons learnt from the evaluation of the approach taken to develop this FMP with stakeholders including the wider FMP programme
- consider how a collaborative approach can continue to be taken in implementing, monitoring and reviewing the FMP
- consider how best to ensure that any impacts on FMP stocks and fisheries are considered in wider policy delivery

Relevant Fisheries Act objectives

The relevant Fisheries Act objectives are the:

- scientific evidence objective
- national benefit objective
- sustainability objective

Implementation, monitoring and review

Implementation and monitoring

This FMP sets out a vision and goals for these fisheries, together with the policies and management interventions necessary to achieve them. The FMP proposes new measures but does not implement them. The actions and measures will be followed by an implementation phase where delivery options will be further identified. This can include voluntary measures, licence conditions, national and regional byelaws, and statutory instruments. This implementation phase will build on the existing evidence base, any action taken throughout the FMP's development and the options discussed with stakeholders. As far as this is possible, the FMP Partnership will continue to meet and support implementation.

Subsequent implementation roadmaps will be monitored and reviewed regularly to ensure progress.

This FMP will be reviewed at least every 6 years in line with its statutory review cycle. After this point it will be necessary to evidence what has been achieved through the implementation of those actions and measures. The FMP will also be reported on every 3 years as part of the JFS review and reporting cycle. This review process will also build in monitoring for potential environmental, social, cultural, and economic effects, to help establish whether any changes are needed in the management of sardine, anchovy, herring, horse mackerel and greater silver smelt fisheries.

Indicators for monitoring the effectiveness of the plan

This is the first version of this FMP, which sets out the initial steps and longer-term vision necessary for sustainable management of these fisheries. FMPs will take time to develop and implement. They are intended to allow an adaptive approach. They will be reviewed and improved (where needed) over time as we collect more evidence and collaborate with the fishing sector and wider interests on the sustainable management of these fisheries.

Delivery of the actions and measures for this FMP will be monitored. As far as possible, monitoring will include consideration of the effectiveness of the policies under each of the eight goals set out in this FMP. Further reviews may also be required if new opportunities present themselves to improve the effectiveness of the plan and achieve the overall vision of the FMP.

Below we set out how the effectiveness of the plan can be monitored:

- An increase in the available evidence to define and measure stock status for sardine, anchovy, Bristol Channel and Western Channel herring stocks which lack sufficient evidence to determine MSY will be an indicator of the effectiveness of this plan for these stocks.
- As part of annual negotiations, annual reviews will be undertaken of the stocks to analyse how they are performing against these reference points, and any other reference points provided within the advice. Ongoing use of best available scientific evidence to guide management decisions for the stocks that receive scientific advice on fishing opportunities (Western Channel and Bristol Channel herring, Celtic Sea herring, horse mackerel and greater silver smelt) and continuing to work effectively with coastal State partners to ensure sustainable harvesting of these stocks will be an indicator of the effectiveness of this plan. This recognises the limitations of the UK in joint management of a stock where maintaining overall biomass may be beyond our control and reflects the potential future variation as a result of climate change.
- An increase in wider ecological, social, and economic evidence relating to these fisheries that can be used to inform management of these stocks, including how climate change may affect the stocks and related fishing opportunities will be an indicator of the effectiveness of this plan.
- An increase in evidence on the extent of the wider impacts of the fisheries on the environment, as well as an increase in any measures in place to reduce any impacts identified if shown to be needed, will be an indicator of the effectiveness of this plan.
- An increase in understanding of the economic, cultural and social benefits of these fisheries, will be an indicator of the effectiveness of this plan.
- The completion and sharing of the evaluation of the application of a natural capital approach with stakeholders will be an indicator of the effectiveness of this plan.
- An increase in evidence on the risks and opportunities for FMP stocks to inform measures to reduce negative impacts on the stocks and/or to support opportunities for the stocks, will demonstrate effectiveness against this plan.

The FMP will take advantage of future social datasets to be developed as set out in section 3.2.10. of the JFS, which outlines that a range of information will be gathered, including scientific, technical, economic, and social data. The monitoring and evaluation framework for the FMP will continue to be developed and supported by the independent programme evaluation of the FMP programme, which will produce a framework for evaluation of individual FMPs.

Evaluation and review process for indicators

As set out in the Act, this FMP must be reviewed when appropriate, and at least every 6 years. This formal review will assess how the FMP has performed in terms of meeting the objectives of this Act. The findings of these reviews will inform the development of subsequent versions of the FMP. Reviews can be undertaken sooner, for example, if one of the above indicators identifies the need for review.