Department
for Environment,
Food & Rural Affairs

Proposed wrasses complex Fisheries Management Plan

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Contents

Abbreviations

The Act – The Fisheries Act 2020

BMP – Bycatch Monitoring Programme

Cefas – Centre for Environment, Fisheries and Aquaculture Science

CPUE – Catch Per Unit Effort

CRS – Conservation Reference Size

Defra - Department for Environment Food and Rural Affairs

eNGO – Environmental Non-Governmental Organisation

EU – European Union

FMP – Fisheries Management Plan

GES – Good Environmental Status

ICES – International Council for the Exploration of the Sea

IFCA – Inshore Fisheries and Conservation Authorities

JFS – Joint Fisheries Statement

JNCC – Joint Nature Conservation Committee

LPUE – Landings Per Unit Effort

MaxCRS – Maximum Conservation Reference Size

MCRS – Minimum Conservation Reference Size

MCZ – Marine Conservation Zone

MMO – Marine Management Organisation

MPA – Marine Protected Area

MPS – Marine Policy Statement

MRAG - Marine Resource Assessment Group

MSY – Maximum Sustainable Yield

NQS – Non-Quota Species

PLN – Port letters and numbers

SAC – Special Area of Conservation

SNCB – Statutory Nature Conservation Bodies

SPA – Special Protection Areas

TCA - Trade and Cooperation Agreement

UK – United Kingdom

UKMS – UK Marine Strategy

VMS – Vessel Monitoring System

I-VMS – Inshore Vessel Monitoring System

WG – Working Group

Executive summary

The wrasses complex fisheries management plan (FMP) is one of 43 FMPs set out in the Joint Fisheries Statement (JFS). FMPs provide the tools for managing fishing activity towards more sustainable fisheries and are a requirement of:

- the Fisheries Act 2020 ("the Act").
- the United Kingdom (UK) JFS 2022.

The wrasses complex FMP ("this FMP" or "the FMP") covers the wrasses species complex:

- ballan wrasse (Labrus bergylta)
- corkwing wrasse (Symphodus melops)
- cuckoo wrasse (Labrus mixtus)
- goldsinny wrasse (Ctenolabrus rupestris)
- rock cook wrasse (Centrolabrus exoletus))

The FMP covers English Waters of the International Council for the Exploration of the Sea (ICES) areas 4b, 4c, 7a, 7d, 7e, 7f, 7g, 7h, 7j. The Department for Environment, Food and Rural Affairs (Defra) are the relevant authority, and the FMP meets the requirements of the Environmental Assessment of Plans and Programmes Regulations 2004 (the SEA regulations).

What is an FMP?

An FMP sets out a longer-term vision and goals for the fishery together with policies and management interventions designed to restore or maintain one or more stocks of sea fish to sustainable levels. Where appropriate, it identifies actions to address wider environmental, social and economic considerations. To remain effective, the FMP will be reviewed and, if necessary, revised at least once every six years.

Why an FMP for wrasse in English waters?

Wrasse are targeted by both the commercial and recreational sectors and can be a bycatch species in commercial trawl and net fisheries. There is limited fishery-dependent and fishery-independent data available for wrasse species around the United Kingdom (UK), including their use as pot bait in other fisheries.

Wrasse act as "cleaner fish" in their ecosystems, leading to their use in aquaculture for removing sea lice. Given the lack of available data, a comprehensive FMP is essential to manage these fisheries effectively.

Stakeholder engagement

This FMP was developed by the Marine Management Organisation (MMO) in collaboration with a Working Group (WG). The WG was made up of fisheries stakeholders, including:

- commercial fishing industry
- recreational fishers
- IFCAs
- the aquaculture industry
- environmental non-governmental organisations (eNGOs)
- scientists

They contributed through informal discussion, formal in-person workshops and online sessions. The MMO also commissioned a joint online survey with the Seabream FMP, asking respondents to identify concerns, opportunities and propose potential solutions. Read a detailed account of all FMP engagement in the FMP engagement report.

FMP vision

The vision for this is FMP is to develop the evidence base to increase or maintain stocks of wrasse species, supported by consistent data collection and research programmes. It will also aim to ensure the long-term social and economic viability of fisheries contributing to obtaining Good Environmental Status (GES) within English waters.

FMP policy goals

To ensure effective management, the FMP identifies four policy goals focused on three wider thematic areas:

1. sustainable fisheries
2. evidence gathering
3. social and economic interests

These goals are subject to consideration of consultation responses and will be prioritised accordingly.

For each policy goal the plan sets out:

- a rationale
- short-term actions (within the next 2 years).
- medium to long-term actions (2 years or more after publication)

Performance indicators for the FMP are included in the Implementation, monitoring and review section. The policy goals of this FMP are to:

- increase or maintain wrasse stocks within English waters

- further our understanding of fisheries for wrasse in English waters
- identify ecosystem-based fisheries management approaches to mitigate wider ecological and environmental impacts
- deliver a framework to support the role of the FMP in realising the social and economic benefits of wrasse to coastal communities

Scope and purpose

The FMP supports wider commitments on protecting the marine environment, restoring biodiversity, and addressing climate change, in particular the Environment Improvement Plan 2023. Each FMP also supports commitments under the UK Marine Policy Statement, the UK Marine Strategy, the marine wildlife bycatch mitigation initiative, UK Marine Plans and the Climate Change Act 2008. The preparation process had regard for the prevailing 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 to e) and 19(1) of the Environment Act 2021).

The actions in this FMP take account of the requirements of the TCA and cooperation with other coastal States on fish stocks in their respective waters. Given the limited, low value of EU wrasse landings and lack of stock connectivity, it is unlikely that EU interests will be impacted.

Current scientific evidence is insufficient to enable an assessment of Maximum Sustainable Yield (MSY) for FMP stocks. MSY assessments, and the use of MSY as a management goal, are not considered appropriate for wrasse stocks and consequently will not be pursued under this iteration of the FMP. Under Section 6(3)(b) of the Act, the reasons for not developing MSY assessments for the FMP species are:

- the data poor status of wrasse stocks
- limited and declining commercial targeting of wrasse, with most wrasse landed as bycatch in other fisheries
- limited recreational retention of wrasse
- complex life histories, including, but not limited to, hermaphroditism, sexual dimorphism, and limited stock connectivity leading to isolated populations of wrasse

This management will consider suitable proxies which may be used for the assessment of the stock to ensure that harvest is sustainable. Commitments for the long term will look to close the data gaps on all wrasse complex species, to conduct the most appropriate assessments, and ensure all species will be fished within suitable levels.

Description of the fishery and stocks

Stocks

Wrasse are fished as non-quota species (NQS) and no formal stock assessment has been conducted. There is insufficient scientific evidence available to assess them at MSY. Trawl surveys, localised surveys, commercial landings data and recreational catch reporting

indicate that these are all spatially discrete, inshore species, primarily concentrated in the south and southwest of the British Isles (ICES areas 7f, 7e and 7d).

Geographic area

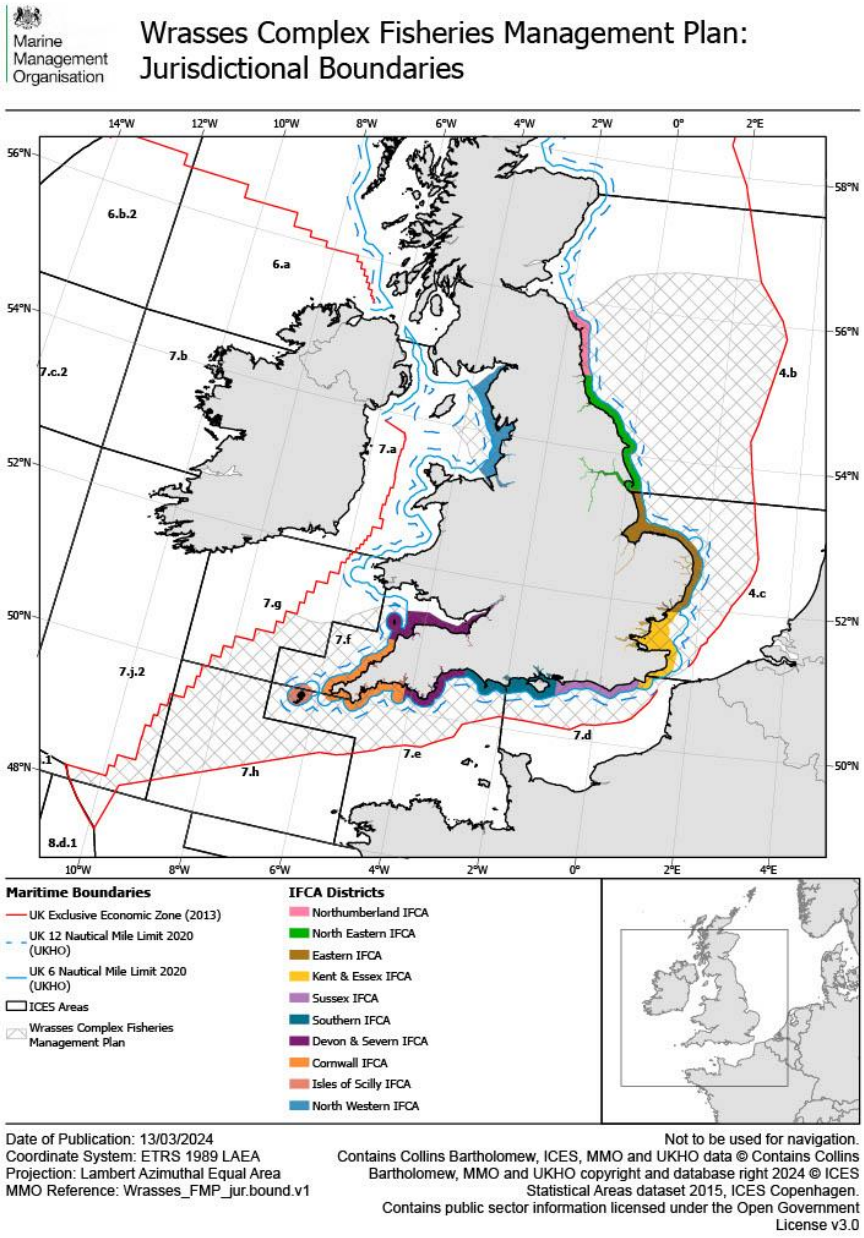

Figure 1. Jurisdictional boundaries within the area covered by the wrasses complex FMP (Collins Bartholemew, ICES, MMO and UKHO copyright and database right 2024).

The FMP encompasses all English waters (Figure 1), which are divided into 11 marine plan areas and covered by six marine plans. The MMO landings data from UK sea fisheries and annual statistics 2016 to 2023 indicate that most English wrasse fisheries are concentrated along the south and southwest coast. In the current wrasse fisheries landscape, the South West Inshore and Offshore Marine Plan and the South Inshore and Offshore Marine Plan are of particular relevance.

Species biology and distribution

The FMP species are distributed across various habitats, from shallow inshore areas to deeper waters, with preferences for rock, kelp and reef-associated habitats. (Magill SH and Sayer MDJ, 2002) (Gjøsæter J, 2002). Wrasse species are small to medium-bodied, although their size varies between species, with ballan wrasse being the largest in UK waters (Ellis JR, 2015). The lifespan of wrasse differs by species; ballan wrasse may live more than 20 years, while other species may not live more than 10 years (Dipper FA, Bridges CR and Menz A, 1977) (Darwall WRT and others, 1992) (Sayer MDJ, Gibson RN and Atkinson RJA, 1996).

Hermaphrotism varies between wrasse species, specifically:

- Ballan and cuckoo wrasse are protogynous hermaphrodites (born female and undergo a sexual transition to become male)
- corkwing and, in most cases, rock cook wrasse do not change sex as they are gonochoric (either male or female);
- goldsinny wrasse are gonochoric but can display occasional instances of hermaphroditism (Dipper FA, Bridges CR and Menz A, 1977) (Darwall WRT and others, 1992) (Dipper FA and Pullin RSV, 1979) (Quignard JP and Pras A, 1986) (Baensch HA and Debelius H, 1997).

Wrasse colouring varies with sex, season and maturity, but individual species tend to have a similar general colouration that is distinct between males and females (Sayer MDJ, Gibson RN and Atkinson RJA, 1996) (Lythgoe J and Lythgoe G, 1991).

Wrasse generally lay demersal eggs (near the seafloor), with species reaching sexual maturity at different lengths (Darwell WRT and others, 1992) (Froese R and Pauly D, 2024). Females generally lay their eggs in a nest built by the males, which the male then guards until the larvae hatch (Darwell WRT and others, 1992) (Matić-Skoko S, Bojanić Varezić D, Šiljić J, Tutman P and Pallaoro A, 2013) (Muus BJ and Nielson JG, 1999). Goldsinny wrasse are a known exception to this as they release their eggs in the middle of the water column (Stone J, 1996).

Adult wrasse feed on a range of invertebrates, including ectoparasites as part of symbiotic cleaning interactions (Quignard JP and Pras A, 1986) (Dipper FA, Bridges CR and Menz A, 1977) (Bauchot ML, 1987) (Deady S and Fives JM, 1995a) (Deady S and FIve JM, 1995b) (Muus BJ and Nielson JG, 1999) (Wennhage H and Pihl L, 2002) (Figueiredo M and others, 2005). As a result, some wrasse species are desirable in commercial aquaculture, with rising demand from Scottish salmon farms leading to the establishment of an English live wrasse fishery in the South and Southwest in 2015. Over recent years, effort within the live wrasse fishery appears to have declined, with a reduction in participating vessels in some IFCA districts, and closure of the fishery in others.

The varied species biology, distributions and habitat preferences highlight the diverse ecological niches wrasse occupy, underscoring the importance of bespoke management.

See the FMP evidence statement for more information on the biology and distribution of the FMP species.

The information provided in this FMP is compiled from studies conducted in both UK and European waters. This means more studies will be needed for an accurate understanding of the life history traits of wrasse across English waters.

Stock assessment and maximum sustainable yield

ICES do not assess stock status or provide catch advice for wrasse species, and no assessment units or indicators are currently defined for any of the FMP stocks. Current scientific evidence is insufficient to enable an assessment of MSY for FMP stocks. MSY assessments, and the use of MSY as a management goal, are not considered feasible for wrasse stocks and consequently will not be pursued under this iteration of the FMP. Under Section 6(3)(b) of the Act, the reasons for not developing MSY assessments (or suitable proxies) for the FMP stocks are:

- the data poor status of wrasse stocks and the consequent cost and resource requirements in collecting the data necessary for an MSY assessment or a suitable proxy
- limited and declining commercial targeting of wrasse, with most wrasse landed as bycatch in other fisheries
- limited recreational retention of wrasse
- complex wrasse life histories, including but not limited to hermaphroditism, sexual dimorphism, and limited stock connectivity

Instead, and in line with the Act, the FMP will:

- outline the key steps to obtain the scientific evidence necessary to enable appropriate stock assessments for the FMP species
- suggest actions to manage the FMP stocks at precautionary levels in the absence of stock assessments for these species

The FMP policies provide further detail on the steps towards stock assessments, and the subsequent actions to be taken to maintain or increase levels of FMP stocks.

Fishery status

The information on landings on live weight (shown in Figure 2) and value (shown in Figure 3) has been extracted from commercial fisheries landings data for the years 2016 to 2023. Comparisons were made between available data for both UK and European Union (EU) vessels. The following Food and Agriculture Organisation species codes were used to analyse wrasse:

- ballan (USB)

- corkwing (YFM)
- cuckoo (USI)
- goldsinny (TBR)
- rock cook (ENX)
- wrasse unidentified (WRA)

Commercial fisheries

On average, in the period 2016 to 2023, the FMP area accounted for approximately 20% of all landings of FMP species caught within the UK Exclusive Economic Zone (EEZ) by weight. This equates to an annual average landed weight of 17.22 tonnes (t) from English waters and annual average value of £216,855 (including landings of both live and dead wrasse).

Proportionally higher landings were from UK vessels relative to EU vessels, with UK vessels accounting for 12.6t (73%) of the annual average landed live weight and EU vessels the remaining 4.7t (27%). UK vessels account for almost all the landed value of wrasse, £213,308 (98%). Landings of UK vessels were of substantially greater value per t than of EU vessels. This is likely driven by the UK live wrasse fishery which has historically been of much greater value compared to other wrasse landings. Figure 2 and Figure 3 present the annual live weight and value of wrasse landings for UK and EU vessels in further detail.

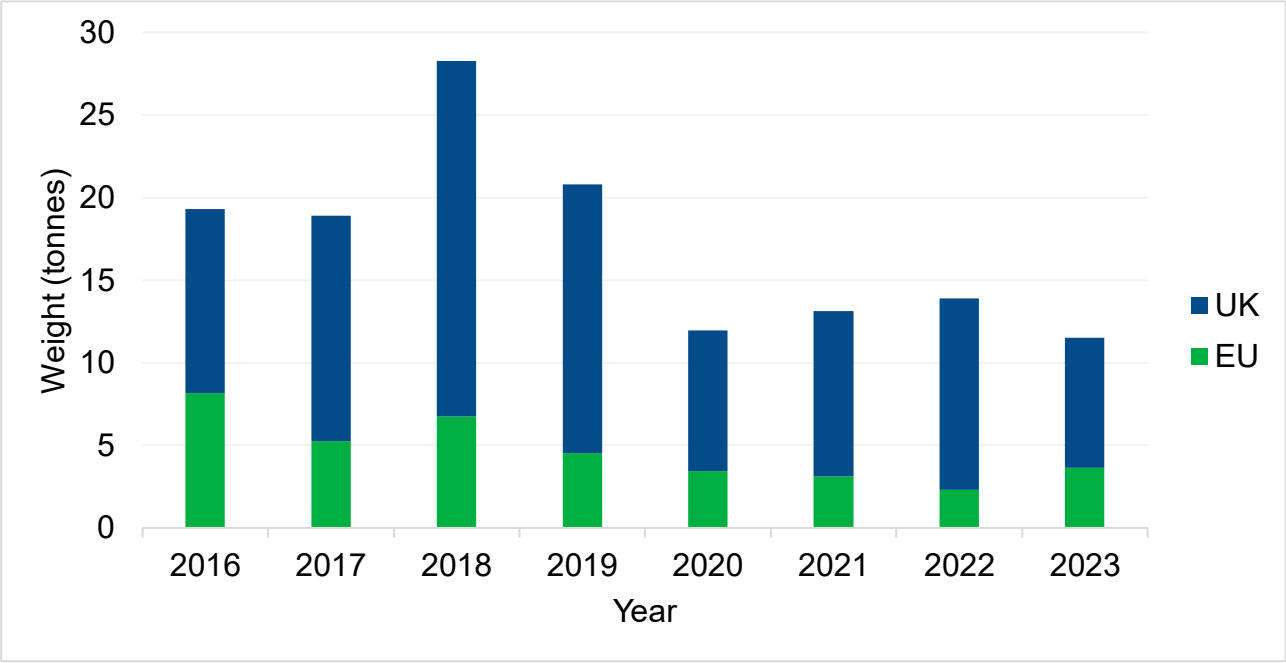

Figure 2. Annual live weight (tonnes) of landings by UK (blue) and EU (green) vessels from 2016-2023 in English waters.

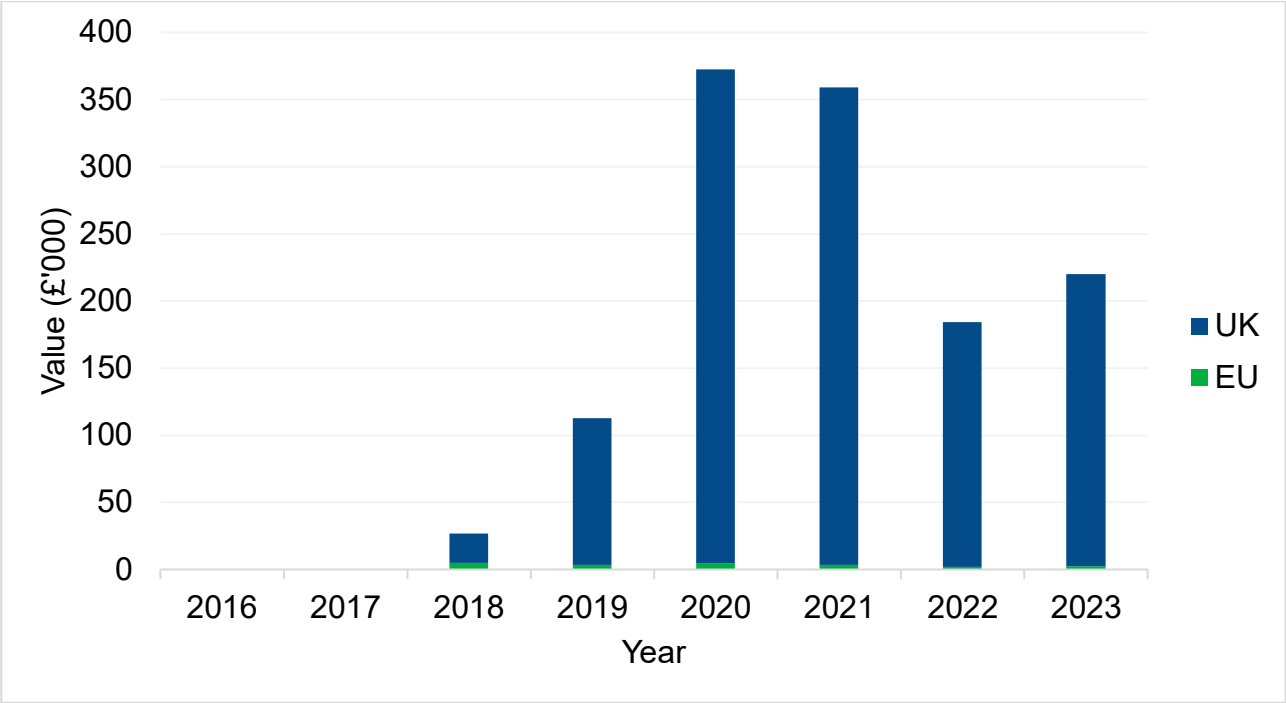

Figure 3. Annual value (£'000) of landings by UK (blue) and EU (green) vessels from 2016-2023 in English waters.

Within English waters, commercial fishing for wrasse occurs primarily across the south and southwest coast. The annual average landings by live weight and value were substantially higher in ICES area 7e than elsewhere, comprising of 67.5% of the total landed live weight and 95% of the total landed value. Table 1 displays landings by ICES area in further detail.

The top three ports in which UK vessels landed the highest annual averages of wrasse by live weight were Plymouth (3.1t), Weymouth (2.4t) and Brixham (1.0t). The top three ports in which UK vessels landed the highest annual averages of wrasse in terms of value were Weymouth, Plymouth and Mylor, landing an annual average value of approximately £120,139, £35,626 and £27,029, respectively. Port landings data were not available for EU vessels.

Table 1. Average annual landed weight (tonnes) and value (GBP £'000) of wrasse (combined) for UK and EU vessels in period 2016 to 2023. Proportions given as proportion (%) of total landings weight or value for UK and EU vessels by ICES area.

ICES Area	UK Wt. (t)	UK £'000	EU Wt. (t)	EU £'000
4b	0.03 (<1%)	0.53 (<1%)	<0.01 (<1%)	<0.01 (<1%)
4c	0.07 (<1%)	2.62 (1%)	0.03 (<1%)	0.02 (<1%)
7a	<0.01 (<1%)	0.01 (<1%)	<0.01 (<1%)	<0.01 (<1%)
7d	1.64 (9%)	0.76 (<1%)	1.55 (9%)	1.53 (1%)

ICES Area	UK Wt. (t)	UK £'000	EU Wt. (t)	EU £'000
7e	10.38 (60%)	202.33 (93%)	1.25 (7%)	0.95 (<1%)
7f	0.38 (2%)	6.40 (3%)	1.30 (7%)	0.72 (<1%)
7g	<0.01 (<1%)	<0.01 (<1%)	0.13 (1%)	0.07 (<1%)
7h	0.05 (<1%)	0.65 (<1%)	0.27 (2%)	0.11 (<1%)
7j	<0.01 (<1%)	<0.01 (<1%)	0.12 (1%)	0.15 (<1%)
Total	12.57 (73%)	213.31(98%)	4.65 (27%)	3.55 (2%)

The gear composition in which wrasse was landed by UK and EU fleets are presented in Figure 4 and Figure 5. Drift and fixed nets (8.2t, 48%) and demersal trawls (3.8t, 22%) accounted for the greatest amount of wrasse landed annually by live weight. In contrast, the annual average value of wrasse landed was greatest for pots and traps (£100,763, 46%), and drift and fixed nets (£83,825, 39%).

For the UK fleet, the predominant gear types that recorded wrasse landings were drift and fixed nets, which landed an annual average of 7.9t (63%). The second most predominant gear types were pots and traps, which landed an annual average of 2.9t (23%). For the EU fleet, the predominant gear types were demersal trawls and beam trawls, which landed an annual average of 3.1t (67%) and 1.0t (22%), respectively. In comparison to the UK fleet, drift and fixed nets comprised of 7% of EU wrasse landings, landing an annual average of 0.3t. Furthermore, EU handlines account for substantially fewer landings of wrasse than UK handlines.

With regards to vessel sizes, 46% of EU vessel landings were from vessels 24 to 40 metres (m) in length, followed by 18 to 24 m vessels (39%). These vessels landed an average of 2.2t and 1.80t on average per year from 2016 to 2023, respectively. Wrasse landed by the UK fleet were predominantly by vessels 0 to 10 m in length (70%), which landed 12t on average per year for the same time period.

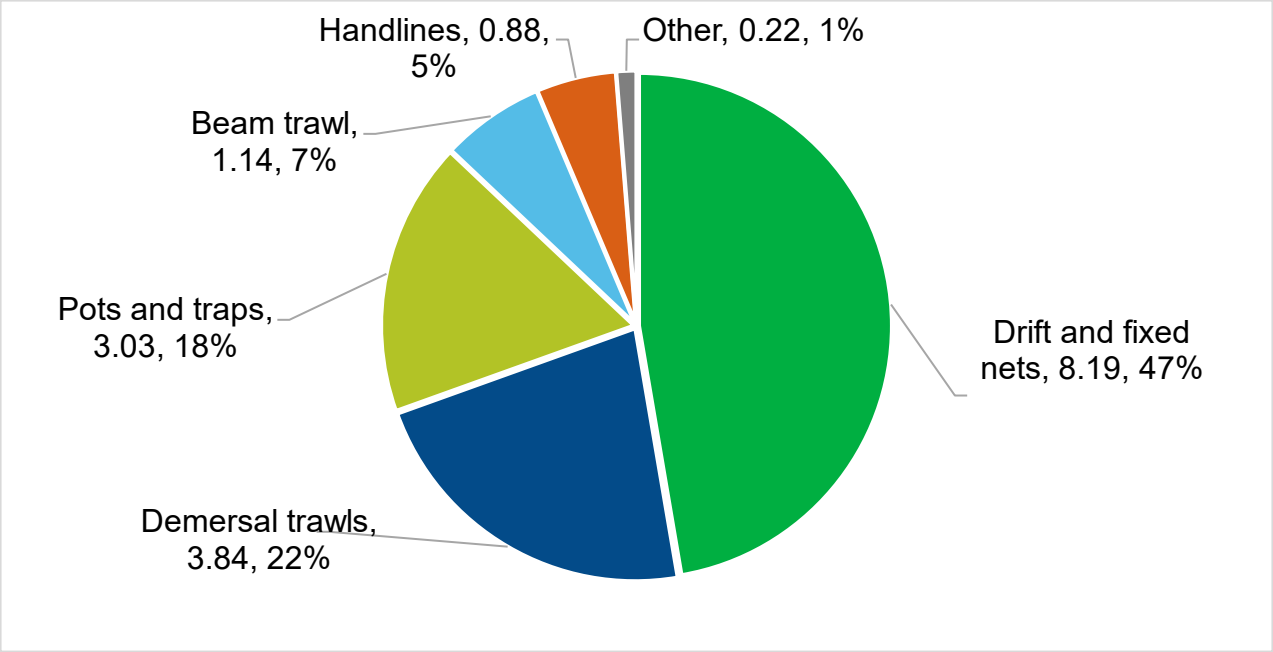

Figure 4. Proportion of annual average landings by gear type 2016 to 2023 for weight (tonnes) of wrasse (combined) landings in English waters. 'Other' in the for weight refers to other mobile gear, pelagic trawls, dredges, demersal seines and longlines.

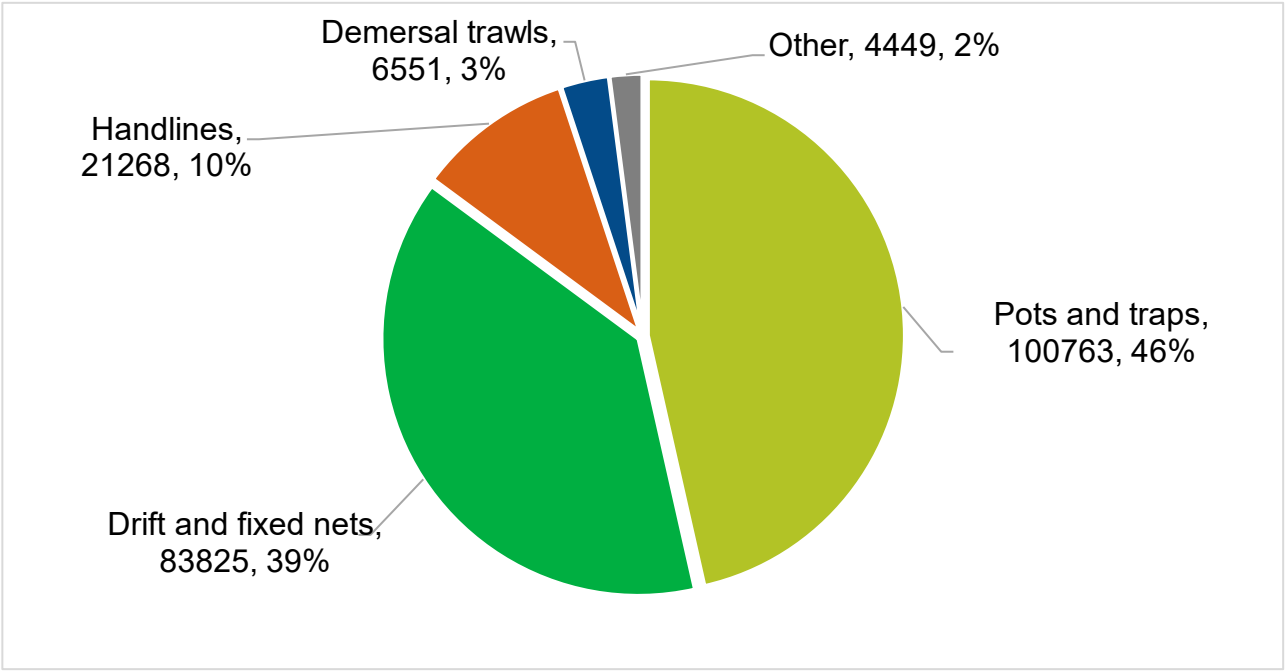

Figure 5. Proportion of annual average landings by gear type 2016 to2023 for value (£) of wrasse (combined) landings in English waters. 'Other' for value refers to other mobile gear, beam trawls, pelagic trawls, dredge, demersal seine and longlines.

Economic and social data for the commercial fishery

In Figure 6, economic dependence for UK vessels is reflected as the percentage of revenue from wrasse landings in English waters compared to their total fishing income.

The total number of vessels involved in the FMP fishery averaged 154 per year from 2016 to 2019, but after 2020 it began to decrease, falling to 81 in 2023. Each year between 86% and 97% of all vessels targeting wrasse are less than 5% financially dependent on the FMP species for their total fishing income. Very few vessels (shown in dark blue in Figure 5) rely on wrasse to contribute to 80% to 100% of their total fishing income.

Data from 2016 to 2023 indicates that between 50% and 68% of wrasse landed (by total annual live weight), are by vessels that only earn less than 5% of their total income from this fishery. Those vessels that did generate the majority of their income from wrasse, only contributed between 8% and 16% of annual total wrasse landed (by live weight) from 2020 to 2023. Almost all vessels catching wrasse were registered in England.

The vessels most reliant on wrasse were predominantly under 10m in length, aligning with those fishing for live wrasse using pots and traps in inshore waters.

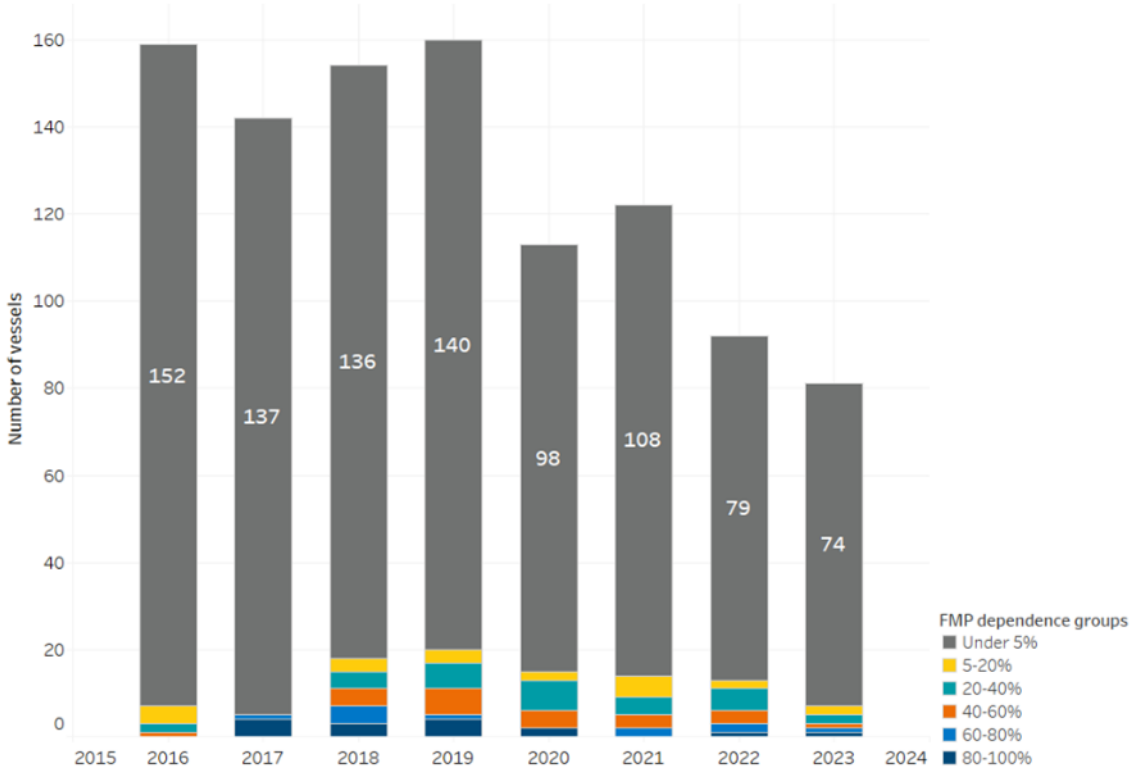

Figure 6. Number of UK vessels involved in the wrasse FMP fishery by level of economic dependence on the FMP (2016-2023).

Recreational fisheries

Wrasse are commonly caught by new entrants to the sector, often helping to foster interest in continued participation in the sport. They are also economically important due to their accessibility and attractiveness. Ballan wrasse is the most frequently caught by recreational anglers. UK anglers can record their catches as part of the Sea Angling Diary

Due to their different colourings making identification difficult, all wrasse have been combined at the family level. From 2016 to 2023, the estimated average annual catch-and-release tonnage of wrasse was approximately 214t. The estimated average annual retained catches for wrasse were around 3t. About 59% of the average annual landings were attributed to ICES area 7e, and around 20% were from 7a. Wrasse are less abundant along North Sea coasts, making them less important to recreational fisheries in those areas.

Anglers targeting wrasse typically practice catch-and-release, with approximately 99% of wrasse being released. However, the levels of mortality from recreational fisheries remain uncertain. Further details on the Sea Angling Diary methodology and outputs can be found in the supporting evidence statement.

Fisheries management

Harvest strategy

A harvest strategy acts as a pre-agreed proactive framework for making fisheries management decisions. However, a considerable amount of data is required to inform a robust harvest strategy.

The FMP harvest strategy aim is for wrasse fisheries to be managed sustainably, but there is currently not enough data to assess MSY. In line with the Act, the precautionary approach must be adopted until the stock status can be assessed through additional scientific evidence collection. In the interim, the effectiveness of current management will continue to be monitored. Few wrasse are landed by EU vessels in UK waters, and there are no targeted wrasse fisheries by EU vessels in UK waters, therefore impact on EU vessels is minimal.

Current UK technical measures

Read the statutory guidance on the technical conservation and landing obligation (discard ban) regulations, which includes:

- how the rules apply
- exemptions
- selling undersize fish
- reporting requirements
- and quota management

Due to data deficiencies, there are no ICES stock assessments for wrasse, or any quotas assigned to any species included in this FMP. For this reason, wrasse fisheries are not subject to the Landing Obligation regulations.

The following Technical Conservation gear legislation applies to all vessels within UK waters of the North Sea (ICES area 2a and sub-area 4) and North Western Waters (ICES sub-areas 5, 6 and 7).

Table 2. Technical regulations which may impact wrasse fisheries are listed in the table below.

Regulation	Gear type	Area	Restrictions
EU 2019/1241 Annex V	Static nets and driftnets	All areas within the UK North Sea and North Western Waters	It shall be prohibited to deploy any bottom set gillnet, entangling net and trammel net at any position where the charted depth is greater than 200m. It shall be prohibited to have on board or deploy one or more driftnets the individual or total length of which is more than 2.5km.
EU 2019/1241 Annex V	Towed gear, static nets and drift nets.	North Sea (includes ICES sub-area 4)	Vessels shall use a mesh size of at least 120mm.
EU 2019/1241 Annex VI	Towed gear	North Western Waters	Vessels shall use a mesh size of at least 120mm, or at least 100mm in ICES sub-area [7d–7j]. Exceptions apply.
EU 2019/1241 Annex VI	Static nets and drift nets	North Western Waters	Vessels shall use a mesh size of at least 120 mm. Exceptions apply.
EU 2019/1241 Annex V	Beam trawl	Within 12 nautical miles of the coast of the UK	Vessels shall be prohibited from using any beam trawl inside the areas within 12 nautical miles of the coasts of the UK. Fishing with beam trawls within the specified area shall be permitted provided that: The engine power of the vessels does not exceed 221 kilowatt-hour, and their length does not exceed 24m; The beam length or aggregated beam length, measured as the sum of each beam, is no more than 9m, with a cod-end mesh size of less than 31mm.

Regional inshore fisheries management

There is no national UK legislation specific to wrasse in English waters, but some Inshore Fisheries and Conservation Authorities (IFCAs) have implemented local management within their 6 nautical mile limit jurisdictions. IFCAs have general byelaws in place outlining vessel or gear specification restrictions for fishing within specified areas.

Current IFCA byelaws which may contribute to the management of FMP area wrasse fisheries are available on the IFCA websites listed and summarised below:

- North Western IFCA

- North Eastern IFCA
- Northumberland IFCA
- Eastern IFCA
- Kent and Essex IFCA
- Sussex IFCA
- Southern IFCA
- Devon & Severn IFCA
- Cornwall IFCA
- Isles of Scilly IFCA

Conservation reference sizes

There is no national minimum conservation reference size (MCRS) or maximum conservation reference size (MaxCRS) for any of the FMP species.

Cornwall IFCAs live wrasse fishing (limited permit) 2018 byelaw outlines MCRS for:

- ballan (16cm)
- corkwing, goldsinny and rock cook (12cm)
- cuckoo wrasse fishing is prohibited

Devon & Severn IFCAs potting permit byelaw outlines MCRS and MaxCRS for:

- ballan (18cm and 26cm)
- corkwing(14cm and 18cm)
- goldsinny (12cm and 23cm)
- cuckoo (15cm and 23cm)
- rock cook fishing is prohibited

Southern IFCAs MCRS byelaw and wrasse fishery guidance stipulate MCRS and MaxCRS for:

- ballan (18cm and 28cm)
- corkwing (14cm and 2cm)
- goldsinny (12cm and 18cm)
- rock cook (12cm and 18cm)
- within the wrasse fishery guidance only, cuckoo wrasse are prohibited as part of the live fishery

In Sussex IFCA all wrasse are subject to an MCRS of 40cm under the spearfishing code of conduct.

North Western IFCA, North Eastern IFCA, Northumberland IFCA, Eastern IFCA, Kent and Essex IFCA do not have a MCRS or MaxCRS for any wrasse species.

Live wrasse management

Mandatory live wrasse management measures are present in some IFCA districts.

In Cornwall IFCA under the live wrasse fishing (limited permit) byelaw 2018 the following management measures apply:

- only permit holders (maximum five individual people at once) are allowed to retain live wrasse (Permits are valid from the date of issue until 23:59 hours on 31 December of the same year, they are not transferrable between persons/vessels)
- there are eight areas within Cornwall IFCA in which live wrasse fishing is prohibited
- ballan wrasse cannot be retained or landed between 1 January and 31 March, inclusive
- goldsinny wrasse, rock cook wrasse or corkwing wrasse cannot be retained or landed between 1 May and 30 June, inclusive
- pot traps must not exceed 75cm (length), 45cm (width) and 35cm (depth)
- pot trap entrance must include hard or rigid eye that does not exceed 9cm
- pot must include an unobstructed 7x1 cm escape gaps
- before the 15th day of each month, the permit holder must submit data on wrasse species and numbers caught, type and quantify of gear employed and the area fished

In Devern & Severn IFCA under their policy and guidance for the live wrasse fishery (August 2021) and potting permit byelaw the following management measures apply:

- there is a temporal closure between the 1 May and 15 July to protect the majority of spawning individuals
- 120-pot limitation for each permit holder Fishery limit of 480 pots annually - shared equally amongst the vessels
- pot strings must be labelled with WRA and vessel port letters and numbers (PLN).
- each pot must be fitted with tags supplied by IFCA

In Southern IFCA there is no mandatory live wrasse fishery management, aside from the MCRS byelaw which applies to all fishing activity in Southern IFCA boundaries. However, under their wrasse fishery guidance there are the following voluntary management measures outlined:

- all forms of commercial fishing for live wrasse should not take place within the coastal areas listed within Southern IFCA Wrasse Fishery Guidance
- Pot fishing for live wrasse should not take place within a defined area under the Wrasse Fishery Guidance
- voluntary seasonal closure between 1 April and 30 of June each year.
- voluntary effort limitation of no more than 80 pots per vessel
- the placing of pots and rod and line fishing for wrasse should not take place in water deeper than 10 metres

- fishers are requested to submit monthly catch returns detailing quantities of individual species caught, fishing method, fishing locations and fishing effort
- when storing and transporting live fish and seawater, appropriate biosecurity and husbandry measures should be followed to prevent mixing of genetic structure and the transport of disease, parasites and non-native species

Devon and Severn IFCA also have voluntary closure areas in their live wrasse fishery guidance (August 2021), with small, closed zones referred to as 'No wrasse pot zones'.

At the time of drafting, there is no longer a viable market for live wrasse in the Devon and Severn IFCA. The byelaws remain active should demand for the fishery return.

Recreational wrasse management

There are few wrasse-specific management measures that apply to recreational fishers. Cornwall IFCA clarifies that wrasse permits are not needed if the individual is landing wrasse dead for consumption or use as bait; or if fishing recreationally from a vessel with no fishing licence, where the fish are not intended for sale.

Sussex IFCA's Spearfishing Code of Conduct recommends:

- a voluntary MCRS of 40 cm for all wrasse species
- fish should only be speared if intended for human consumption
- total catch should be limited to a maximum of 10 fish per outing

The code prohibits spearfishing in areas such as:

- marine Sites of Nature Conservation Importance
- confined waterways
- estuaries
- rivers
- marinas
- harbours

Southern IFCA's MCRS Byelaw applies to all fishery participants, including the recreational sector.

Current monitoring and enforcement

Control and enforcement in England is the responsibility of the MMO and the IFCAs. Commercial landings data is publicly available from the UK Sea Fisheries Annual Statistics and fisheries dependent information from the EU Scientific, Technical and Economic Committee for Fisheries (STECF).

Within UK waters, there are legal requirements for fishers and buyers to provide records of fishing activities and first sales of fishery products under UK law. Further detail can be found in the Government guidance for buyers and sellers of first sale fish.

If you buy less than 30kg of fish per day directly from a commercial fisher then you do not need to register as a buyer or submit sales notes

Vessels of 10-m or more are required to complete logbook submissions detailing their catches. All vessels under 10m must record their catches on the 'Record your Catch' application (Catch App), web service or phone line. Fishers are encouraged to report their catch to a species-specific level. When identification is not possible, wrasse is recorded under the general wrasse code (WRA).

For vessels 12 metres and over, fishing in English waters, remote vessel monitoring is mandatory, using the Vessel Monitoring System (VMS) to record their positions. All English under-12 metre vessels registered with a commercial fishing vessel licence must have a functional MMO type-approved I-VMS (inshore) device when undertaking a trip to sea.

The MMO collects ongoing fisheries-dependent data on wrasse from national and international landings data, which gathers information on commercial operations. This includes gear type, geographic location, vessel nationality, vessel identification, port where the catch is landed and more.

This FMP uses the MMO landings data that is publicly available from the UK Sea Fisheries Annual Statistics and fisheries dependent information from the EU Scientific, Technical and Economic Committee for Fisheries (STECF).

Scientific trawl surveys provide fishery-independent data on a wide range of species. However, to minimise survey gear damage these surveys tend to avoid rocky inshore grounds, where wrasse is most abundant, therefore there is insufficient data to examine 'stock trends'.

Existing trawl surveys give misleading information about their distributions. Alternative survey methods using remotely operated vehicles, self-contained underwater breathing apparatus surveys or baited pots and traps may be more appropriate to examine wrasse populations. Few historical data sources exist for wrasse, with data lacking for most areas. The Solent bass survey samples the lengths of most commercial species including wrasse.

Several IFCAs have established systems to monitor wrasse fisheries within their jurisdictions. The Devon and Severn IFCA collected comprehensive data on the live wrasse fishery through landings recorded and submitted by fishers. Additionally, from 2017 to 2020, the district's environmental officers conducted annual observer surveys on wrasse fishing vessels. This information was compiled into annual reports, which supported Habitat Regulations Assessments and informed necessary management adjustments.

At the time of drafting, Southern IFCA has the most activity for the live wrasse fishery. However, this has decreased over recent years with a reduction in gear used and number of vessels. Southern IFCA have an annual Monitoring and Control Plan for their live

wrasse fishery, which includes eight indicators to ensure sustainable practices. Should these triggers be approached, exceeded or significantly change, the district authorities re-assess activity within the fishery. Through patrol work, officers monitor the data to inform the Monitoring and Control Plan and compliance with Wrasse Fishery Guidance and the MCRS Byelaw.

This FMP may look to establish a national approach to gathering data and monitoring trends of wrasse populations. Anecdotal evidence indicates that a significant number of large wrasse are caught as bycatch in pot and trap fisheries and subsequently used as bait, primarily in crab and lobster pots. The extent of these instances is not well-documented, so the FMP will seek to quantify the number of wrasse used as bait in these fisheries.

Royal Society for the Prevention of Cruelty to Animals welfare standards

In May 2024, the Royal Society for the Prevention of Cruelty to Animals released welfare standards relating to farmed Atlantic Salmon. These included standards relating to the retention, transport and use of wrasse as cleaner fish. Read about these standards in the environmental report.

Environmental considerations

FMPs are subject to legal and environmental obligations arising from legislation such as Habitats Regulations and UK Marine Strategy (UKMS) part one, part two and part three. They are also subject to the UK Marine Policy Statement, the Environment Act 2021, the Marine and Coastal Access Act 2009, and the Environmental Principles Policy Statement. These policies and legislation are aimed at ensuring the health of our seas for future generations, and our ambitions to restore biodiversity and address climate change.

Defra commissioned the Statutory Nature Conservation Bodies (SNCBs) to provide advice on the:

- potential risks posed by wrasse fisheries to the designated features of MPAs and UK Marine Strategy (UKMS) descriptors
- extent to which these risks might affect our ability to contribute to the UK achieving GES

The evidence and advice that has been provided by SNCBs underpins the suggested measures put forward in the following sections.

Marine Protected Area impacts

Management of fisheries activity occurring within Marine Protected Areas (MPAs) is addressed through separate work undertaken by the MMO and the IFCAs (Managing fishing in marine protected areas) as advised by Statutory Nature Conservation Bodies (SNCBs) (for example, Natural England and the Joint Nature Conservation Committee (JNCC).

There remains the potential for fishing activity occurring outside of an MPA to have impacts on the designated features protected within an MPA, or on mobile designated features travelling outside of the MPA. Existing assessment and management pathways are already being undertaken through separate work. This is to mitigate risks from fishing activities within MPA boundaries, so no specific additional action is suggested for the FMP within these areas. Instead, this advice focuses on risks to MPA features from fishing activities occurring outside site boundaries that may impact MPA designated features, such as marine mammals, seabirds, fish, and the seafloor.

The primary gear types used to target wrasse are pots, with rods and line fisheries are also used in some cases. Natural England and JNCC assessed pots as being a low risk to marine mammals, as well as seabirds and fish that are designated features of MPAs. Pots, rods and lines are very selective in nature and there is currently no evidence to suggest that there is a significant threat of bycatch from these gears. Wrasse are mid-trophic species and act as parasite controls within their ecosystems. The risks to the designated features of MPAs from their targeted removal are considered low as there is a lack of evidence to suggest that MPA designated marine mammals, seabirds or fish significantly rely on wrasse as prey.

Natural England and the JNCC expanded their scope to include a wider variety of gear types, recognising the occurrence of wrasse landings as bycatch in other fishing operations that are not managed under this FMP. Read further details on this, as well as the framework used to provide the indicative risk ratings of fishing gear, in the supporting environmental report.

Wider sea evidence: beyond MPAs

The SNCBs focused their advice on the UKMS descriptors where GES is most at risk due to commercial and recreational fisheries. UKMS D3 (commercially exploited fish) focuses on achieving MSY for commercially exploited stocks. This FMP aims to develop the evidence base to establish proxy indicators necessary to monitor the reproductive capacity and fishing mortality rates of wrasse. By following the precautionary and sustainability principles outlined in the Act, significant progress should be made toward meeting or maintaining GES for this indicator. However, it is noted that achieving D3 targets alone may not fully support GES for associated descriptors, like D1 (biodiversity) and D4 (food webs). Therefore, an ecosystem-based approach should be considered.

Due to the risk of abandoned, lost, or otherwise discarded fishing gear, the SNCBs assess pots and traps as posing a moderate risk to achieving GES of D10 (marine litter). Natural England and the JNCC have recommended better recording and mapping of this gear as part of a wider work programme. Overall, pots, rods and lines are not thought to pose a significant bycatch risk to UK seal, seabird or fish populations. Although, the SNCBs advise for continued and mandatory bycatch reporting to improve future risk assessments.

While no immediate action is currently required, this FMP should gather additional evidence to determine the extent to which fishing for wrasse in English waters impacts wider food webs (further addressed in the latter 'FMP Policies' section).

Read the supporting environmental report for details on the evidence evaluated and assessment framework used to provide the indicative risk ratings of fishing gear. Additional consideration of screened-out descriptors may be required in the future. As the evidence base develops, or the suite of indicators associated with a specific descriptor evolves, the advice pertinent to those descriptors will need to be updated.

Climate change

Future climate change modelling scenarios predict that seawater temperature and salinity are set to alter, which are key determinants of fish habitat suitability. Such changes can result in shifts in the distribution of marine species. Beyond impacts on fish, climate change has the potential to affect fisheries and the wider ecosystem through increased storminess, sea level rise, and storm surges.

Further research on the impact of climate change on wrasse and their suitable habitats may be needed, particularly given their spatially discrete distribution. Across the south coast, there has been a reported increase in ectoparasites on other fish which most stakeholders believe is due to climate-related warming waters. Alternatively, this may be an impact of the live fishery, with investigation needed into the impacts of wrasse fisheries on sea lice prevalence to determine if future action is required.

The Climate Change Act 2008 establishes the target to reach net zero by 2050 and the UK seafood sector will need to consider how to reduce emissions to contribute to this target. The Act's climate change objective also requires that future FMP iterations adapt to the impacts of climate change on the UK fishing industry.

FMP vision

The vision of the FMP is to develop the evidence base to increase or maintain stocks of wrasse species in English waters, contributing to the long-term social and economic viability of fisheries and the health of marine ecosystems.

FMP policy goals

Section 6.3 of the Act and 5.2.4 of the JFS mandate that specific policies are set out within FMPs to maintain or restore (or contribute to maintaining or restoring) stocks to sustainable levels, develop MSY (or a suitable proxy) assessments for those stocks that are not currently assessed, or give reasoning for not pursuing MSY assessments.

The FMP introduces policies and actions to address key issues and opportunities identified through stakeholder engagement, analysis of evidence, and legislative requirements. These policies and actions also contribute to achieving GES and enhancing social and economic benefits to coastal communities.

Each of these goals will contribute towards the objectives within the Fisheries Act.

The following section outlines the goals and actions that are being proposed for this first iteration of the FMP. Actions in support of these goals may be developed further during the implementation phase.

Policy goal 1: Increase or maintain wrasse stocks within English waters

Rationale

The prime focus of all FMPs is achieving the long-term, viable harvesting of the stocks within them, as outlined in section 5.2.6 of the JFS and Section 6.3 of the Act. This policy and the actions within it acknowledge and seek to address the limited amount of evidence currently available for these species and the lack of robust indicators for the stocks within the FMP area. They take account of both commercial and recreational fishery pressures, the size and sex-based exploitation patterns of wrasse and consider the need to identify and protect spawning grounds to facilitate the stocks maintenance or restoration.

Actions within the next 2 years

The actions to help achieve this policy goal are:

- use the best available scientific advice to inform management actions for all wrasse species in scope of the FMP
- introduce voluntary commercial and recreational handling guidelines for all FMP species aiming to increase post-release survival, including techniques for gear removal and avoidance of or recovery from barotrauma
- consider the suitability of a standardised, species-specific MCRS for wrasse, including a male/female specific MCRS to protect nest guarding and breeding behaviours in some species

- consider exploring options for the introduction of appropriate conservation reference sizes
- collaborate with relevant stakeholders to assess the current and future demand for live wrasse and monitor the fisheries longevity and economic viability

Actions over the next 2 years or more

The actions to help achieve this policy goal are:

- consider collecting information regarding the impacts of fishing, transportation and husbandry practice, and survival
- evaluate stock-conservation benefits of management measures and identify environmental predictors for spawning, including the identification of important habitat areas relevant for conservation
- consider the feasibility of future wrasse stock assessments

Relevant Fisheries Act 2020 objectives

The relevant objectives are:

- sustainability
- scientific evidence
- bycatch
- precautionary

Policy goal 2: Further our understanding of fisheries for wrasse in English waters

Rationale

This policy outlines actions to obtain the scientific evidence required to further understand wrasse fisheries. The actions outline the evidence gaps to be filled and the actionable steps to take towards developing an appropriate assessment for wrasse populations in the future. They take into account the current lack of information and robust indicators of stock size which mean that improved evidence is required in the first instance to formulate an assessment approach for these species.

Actions within the next 2 years

The actions to help achieve this policy goal are:

- identify priorities to improve the understanding of wrasse fisheries in English waters
- develop identification guides for all FMP species, including differences between juvenile, female and male wrasse to improve landings data

- consider using the Catch App to record information on species-specific length, bait use and discards and quantify species-specific landings of FMP species in all gears
- consider using CPUE assessments to provide insight into wrasse populations in the short term
- consider the development of a research plan to fill data needs to develop suitable stock assessment (this could include biological studies to provide contemporary data relating to age and growth parameters, maturity and fecundity estimates)
- support participation in fishery-science partnership schemes to address evidence and knowledge gaps

Actions over the next 2 years or more

The actions to help achieve this policy goal are:

- consider if the use of alternative data collection channels is appropriate
- explore conducting further research on post-release survival of wrasse caught by various fishing methods and in different environments
- consider developing an evidence base on sexual maturity and growth rates for wrasse species, including consideration of regional variations
- consider development of a research plan to understand what an appropriate stock unit for wrasse looks like, considering appropriate spatial scales for such assessments and noting the high variability between wrasse populations
- consider collaboration with various research institutions, including universities, to develop suitable methodologies for stock assessments that account for the hermaphroditic nature of certain wrasse species

Relevant Fisheries Act 2020 objectives

The relevant objectives are:

- sustainability
- scientific evidence
- bycatch
- precautionary

Policy goal 3: Identify ecosystem-based fisheries management approaches to mitigate wider ecological and environmental impacts

Rationale

The Sustainability, Ecosystem and Bycatch Objectives of the Act (Sections 1.2, 1.4 and 1.6) mandate that fisheries activities are environmentally friendly in the long term, use an ecosystem-based approach, and reduce bycatch of undersized and sensitive species.

There is currently limited information on wrasse ecology and the impact of wrasse fisheries within English waters, therefore the actions identified in this policy look to fill these evidence gaps whilst simultaneously seeking to promote opportunities to positively impact the wider ecosystem.

Actions within the next 2 years

The actions to help achieve this policy goal are:

- consider bringing together existing information into a report on the ecosystem role of wrasse, explore the impacts of wrasse fishing practices on the wider ecosystem and how they can be minimised (including CO_2 emissions)
- explore the contribution of wrasse fisheries to marine litter and how this could be reduced
- consider data collection and trials through the continuation and expansion of existing bycatch mitigation programmes and initiatives (such as the UK Bycatch Mitigation Initiative, Bycatch Monitoring Programme (BMP) and Clean Catch UK)
- support participation in fishery-science partnership schemes to address evidence and knowledge gaps

Actions over the next 2 years or more

The actions to help achieve this policy goal are:

- consider how to improve monitoring distribution and abundance in light of climate change and predicted impacts and risks
- consider development of a research plan to collect data on habitat use and spawning sites of wrasse and understand their recruitment, and research peak spawning periods
- consider approaches to researching and seeking to minimise or eliminate the impact that human-induced habitat degradation (including sediment smothering) has on reef ecosystems which support wrasse to contribute towards the achievement of GES
- consider researching the trophic role of wrasse and using ecosystem modelling to simulate the impact of removing wrasse from the trophic system

Relevant Fisheries Act 2020 objectives

The relevant objectives are:

- sustainability
- ecosystem
- scientific evidence
- climate change
- bycatch

Policy goal 4: Deliver a framework to support the role of the FMP in realising the social and economic benefits of wrasse to coastal communities

Rationale

FMPs aim to balance viable management of fish stocks while also supporting the livelihoods of those dependent on them. An ecosystem-based approach to fisheries necessitates the consideration of social and economic concerns as outlined by the JFS in section 5.2.6. This policy and its actions look to understand the social and economic importance of wrasse fisheries and how they may evolve in the future, with a view to supporting stakeholders in maximising the value of these stocks in the long term.

Actions within the next 2 years

The actions to help achieve this policy goal are:

- engage with industry, recreational, aquaculture and wider seafood industry stakeholders to identify any barriers to the realisation of economic viability to the coastal communities within the FMP area
- consider how to engage with industry and the recreational sector to benefit the long-term suitability of the fishery and improve its management
- consider engagement with the angling community to inform the social and economic importance of the wrasse fishery to local communities

Actions over the next 2 years or more

The actions to help achieve this policy goal are:

- support and encourage industry participation in initiatives to reduce CO_2 emissions and adaptation to the impacts of climate change
- collaborate with relevant stakeholders to assess the fisheries long-term economic viability
- consider how to adapt the FMP to reflect relevant findings from an economic assessment and when new or improved measures are developed as appropriate
- consider assessing the impact of potential modifications to existing technical measures for wrasse and the communities relying on the fishery

Relevant Fisheries Act 2020 objectives

The relevant objectives are:

- scientific evidence
- national benefit
- climate change

Implementation, monitoring and review

This FMP sets out a vision to achieve the longer-term sustainable management of FMP species in English waters, in line with the objectives of the Act. The 'FMP policy goals' section sets out the key actions that should be taken and the timeframes needed to deliver them. Under Section 11 of the Act, policies contained in the FMP must be assessed for their implementation and their effect on the levels of stocks of sea fish, and the results must be reported at least every three years as part of the JFS report. As required by the Act, the FMP must also be reviewed and, if necessary, revised at least once every six years.

The actions in this FMP will undergo a subsequent implementation phase where appropriate mechanisms will be required to deliver them. This phase will build on the existing evidence base, any action taken throughout the FMP's development, and the options discussed with stakeholders. These will be reviewed and taken forward by Defra and the MMO once the finalised FMP is published. A holistic, joined-up approach across FMPs will enhance the effectiveness of their actions, stakeholder participation, and resource utilisation.

This FMP is subject to a statutory review process at a maximum of 6 years after publication. This review process will provide evidence for what has been achieved through implementation. It will also build in monitoring for potential environmental effects to help establish whether any changes are needed in the management of the wrasse fisheries.

Indicators for monitoring the effectiveness of the plan

This is the first version of this FMP and sets out the steps and longer-term vision necessary for sustainable management of this fishery. These plans will take time to develop and implement. They are intended to allow an adaptive approach and will be reviewed and improved over time as we collect more evidence and collaborate with the fishing sector.

There is currently insufficient evidence to determine MSY or a proxy for MSY for the wrasse species included within this FMP. The FMP proposes steps to build the evidence base and support progress towards defining and measuring stock status and reporting on stock sustainability. An increase in the available evidence to define and measure stock status will be one indicator of the effectiveness of this plan for these stocks.

Other indicators to measure the effectiveness of the policies for restoring, or maintaining these stocks at sustainable levels are:

- a baseline of FMP species data to identify evidence gaps and support future assessment of stocks
- increased available evidence to improve understanding of the ecological and biological aspects of FMP wrasse species
- identification guides produced for all FMP species to increase species-specific reporting in English waters

- an introduction of commercial and recreational fishery guidelines for wrasse to increase post-release survival
- increased available evidence on the social and economic importance of wrasse to both the commercial and recreational sector, as well as coastal communities within the FMP area
- increased evidence that wrasse fisheries do not impede the achievement of GES for UKMS descriptors
- precautionary management implemented if necessary for FMP species
- management of FMP species do not interfere with the conservation objectives of the features designated of MPAs with which they interact

Evaluation and review process for indicators

As per 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 Act's objectives. The findings of these reviews will inform the development of subsequent versions of the FMP.

Reviews can be taken sooner, for example, if one of the above indicators identifies the need for review. Progress implementing the policies in this FMP will be assessed as part a 3-yearly process report on the JFS, which will also report on the extent to which the policies contained in relevant FMPs have been implemented and affected the levels of stocks of sea fish.

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