



Marine
Management
Organisation

Channel Non-Quota Demersal FMP Evidence Plan

Evidence Advisory Group
29th March 2023

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This presentation was delivered to members of the Channel demersal non-quota species fisheries management plan (FMP) Evidence Advisory Group (EAG) on March 29 2023.

The content of this presentation provided the EAG with a summary of the Evidence Statement and does is not a full draft of the Evidence Statement.

Due to the fast paced nature of the work carried out by the FMP team, some of the information within this presentation may have changed when the final Evidence Statement is published.

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Why develop an Evidence Statement?

The MMO has been commissioned to produce an evidence statement for its FMP.

This must set out (as a minimum):

- Evidence requirements to assess the listed species MSY or appropriate proxy (section 6 (3) of Fisheries Act 2020)
- What we already know about the listed species and fisheries – including stock data, species biology, environmental impacts of the fisheries and social and economic evidence
- Emerging evidence shortfalls and subsequent requirements

It does not currently include a plan for how these they will be addressed in a phased manner

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The following principles help identify what good evidence looks like with respect to this FMP and have been applied here for both collating existing evidence for the FMP, and identifying further evidence needs.

1. Evidence is to be useful

Evidence needs to inform decisions on what, how, when where and who of FMP development, use, review and amendment with the purpose of achieving the FMP objectives and goals.

2. Evidence of all kinds can be valuable

There are lots of types of evidence whether quantitative or qualitative, primary or secondary. Different types of evidence are right for different purposes. Likewise involving a variety of perspectives and expertise throughout the evidence process can be valuable.

3. Evidence to improve as well as to prove is necessary

A substantial quantity of evidence will be required at all stages of the FMP development, use, review and amendment. While this ES is heavily focused towards generating evidence for FMP development, evidence that will help to improve the FMP is also necessary.

4. Evidence should be integrated

Evidence needs here feed into a wider space and the wider space may provide evidence. This will include integration with the wide-ranging and co-ordinated monitoring programme and advisory framework outlined in the JFS (3.2.2, 3.2.3).

5. A lack of evidence is not justification for inaction

It is not possible to meet all the evidence needs with existing off the shelf data and information given existing timelines. It is important that a lack of evidence does not stop progress.

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When evidence is limited

As the FMP has a statutory requirement to be evidence based, it is important to consider what happens when evidence is limited, unsuitable or absent.

1. Produce the evidence needed

Delivering new evidence may be a simple task of further effort on collation of existing information or substantially more challenging like initiating a long-term programme requiring substantial data collection for a long period at sea.

2. Seeking minimum necessary but not optimal solutions

Evidence is sought that meets the minimum requirements of a goal rather than trying to achieve the maximum (biggest) or optimal (best) outcome across multiple goals or actions. Working in this way results in a reduced need for evidence at expense of the best solutions. Goals may still be achieved but at greater costs or further impacts.

3. Learning by doing

Action may be taken on the best available evidence, however limited, to set a direction of travel for delivering a goal or objective. Evidence is then collected on the progress through monitoring and evaluation. This approach has history in adaptive management programmes and iterative development. Learning by doing changes what evidence is needed or when such that evidence may be more accessible, timely or cheaper to produce.

4. Precautionary approach and precautionary principles

Precautionary actions seek to manage any risks to long term sustainability of the fish or wider ecosystem from inaction due to lack of evidence. Targeted and appropriate evidence tends to reduce the need or level of precaution required and enable more benefit, particularly extractive benefits to be obtained.

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Evidence themes supporting the Channel NQS FMP

In line with the policy objectives of the Fisheries Act (2020), the evidence themes scoped into this ES include:

- Fisheries overview
- Stock sustainability (in relation to MSY or a suitable proxy)
- Domestic and internationally fishery management approaches
- Ecosystem interactions
- Economic significance
- Social significances
- Climate change (mitigation and adaptation)

To address the above topics, there has been a substantial evidence gathering exercise undertaken supported by organisations across government and its advisors.

We recognise that further evidence exists on the topics above that is still to be considered and that the list of topics is not comprehensive but these will develop with the different FMP iterations.

Each sub-section contents follows the similar broad structure outlining:

- What evidence was sort as part of this first iteration together with why this evidence was prioritised
- What methodology was used to collate and interrogate the data
- A summary of findings to date (with further detail available in the Annex)
- Caveats and limitations associated with evidence gathered
- Emerging and outstanding evidence needs

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Fisheries overview

This sub-section is focused on providing an overview to the pertinent fisheries and focuses on the following areas:

- Key fisheries targeting stocks (total number, vessel nationality, vessel size – effort & landings)
- Key fisheries landing stocks
- Gear types (Gear types – effort & landings)
- Fishing Area (fleet segment, ICES area, Ports)
- Catch landed
- Seasonality of associated fisheries
- Total number of vessels landing NQS, their nationality and associated ports and vessel size
- Spatial distribution of commercial operations

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Fisheries overview – Emerging evidence needs

Spatial distribution of recreational arrangements and ports of known significance.

Develop methods to collate landings data to a species level for octopi and squid

Collect EU data for EU vessels at a gear resolution and gear type linkages to EU vessels (currently is of lower confidence being determined by the fleet registry rather than via e-logs historically).

Identification of important spawning areas and nursery grounds.

Survivability of species under consideration for the proposed introduction of MCRS.

Spatial squeeze.

Fishing effort data.

Associated species caught in the Channel demersal NQS mixed fishery.

Species interactions and interdependencies.

Clarity on historic <10m landings.

Analysis of the importance of species and port landings comparable to the number of vessels a port services.

Flyseining catches and reliability of the data

Historical context of the fishery

Relative importance of these species by community dependency

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Stock overview and stock assessment

Species ecology

This sub-section is focused on stock status and supporting evidence related to stock assessment and wider ecology and focuses on the following areas. This following was investigated -

- Species distribution
- Habitat associations (including for spawning, nursery, feeding and overwintering)
- Population structure
- Biology of the target species (including biological geographical remit, life history, predator-prey interactions)
- Environmental thresholds
- Known distribution and seasonal changes
- Wider evidence on stocks and/or fisheries

Overview of species stocks

This sub-section is focused on generating an overview of species stocks to support a stock assessment or the appropriate proxy. This has focused on the following areas

- Current state of stocks
- Evidence available to support a stock assessment
- Suitable methodology to support a stock assessment
- Nominal units which may be considered for assessment

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Species ecology/stock biology – example of emerging evidence needs

Bib (<i>Trisopterus luscus</i>)	Lack ICES Assessment. Would require definition of stock units, and evaluation of survey data. No otolith analysis. Survivability of discards unknown
Brill (<i>Scophthalmus rhombus</i>)	Stock delineation required. Additional data and refinement of survey methods required to effectively sample. Co-managed with turbot. Limited recreational data.
Grey gurnard (<i>Eutrigla gurnardus</i>)	Lack of abundance data for w. Channel. Discards estimates only available to 2012, known to be high. Unknown discard survivability (both commercial and rec). Misidentification of spp. within data and some lack of validation of species-specific landings. No otolith analysis. Age at maturity not known.
John Dory (<i>Zeus faber</i>)	Discard estimates unavailable for all interacting fleets. No otolith analysis. Abundance indices not available. Exploratory assessment conducted, but needs refinement. Requires increased international collaboration to assess stock. Limited recreational data available
Lemon sole (<i>Microstomus kitt</i>)	Good fishery independent/dependent data available, however additional age/length data from all countries needed to conduct full analytical assessment. Limited info on juvenile distribution and presence in survey causes noise in index survey. Stock delineation required
Lesser spotted dogfish (<i>Scyliorhinus canicula</i>)	Clarity required on retention levels, particularly for pot bait. Discarding data could be improved, but high discard survival in trawls means that landings more likely to be representative of actual removal.
Red gurnard (<i>Chelidonichthys cuculus</i>)	High discards but no information on survivability. No otolith analysis. Require CPUE index within 7.e. Require survey data within 7.d
Smooth-hound (<i>Mustelus spp.</i>)	No data collected at genus level, or collated in dogfish and hound landings. Whole fishery discarding data required, plus survival data. Landings in under 10m vessels poorly understood, particularly for pot bait.
Common cuttlefish (<i>Sepia officinalis</i>)	Require stock assessment, preferably within ICES processes. Some previous and ongoing research can support this. Require further research on life histories including lifespans. Info on recruitment lacking. Require catch/landing data for recreational sector.

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This sub-section is focused on scoping out management measures implemented both domestically and internationally

Emerging evidence needs

- Scope out voluntary management arrangements and codes of conducts developed by both recreational and commercial fishers
- Scope out international management measures for the remaining species.

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This sub-section is focused on the wider environmental goals of the FMP including:

- Overlap and risk to features afforded protection through Marine Protected Areas
- Overlap and risk to wider Good Environmental Status

Emerging evidence needs

- Developing existing programmes such as the UK bycatch monitoring programme to assess, additional data through REM or self-reporting or more targeted modelling such as that employed for considering wind impacts may be relevant considerations.
- There is a candidate Highly Protected Marine Area ([Dolphin Head](#)) identified for approximately 55km south of Selsey Bill, West Sussex. It is yet to be considered here
- Map out species sensitive to bycatch and associated impact

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This sub-section is focused on the economic evidence including:

- Direct economic performance and benefits for the commercial fleet
- Fuel price analysis
- Economic benefits of the recreational sectors targeting NQS

Emerging evidence needs

This sub-section concludes with emerging evidence needs. This includes the following known gaps:

- Mapping indirect economic benefits (natural capital) across the commercial fleets and recreational sectors
- Mapping out economic consequences of equal and equitable access across the heterogenous sectoral landscape

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This sub-section is focused on the social and cultural evidence. To date, social elements remain unaddressed. Therefore, we have focused on setting out the emerging evidence needs. These are deemed especially pertinent given that there are multiple interest groups involved, meaning evidence gaps will facilitate a better understanding of the needs and the values of those involved.

Emerging evidence needs

- Design and trial methods to capture fisher's knowledge and facilitate participation in scientific collection processes
- Map the social benefits and contributions flow from pertinent fishing fleets into their affiliated coastal communities.
- Map out barriers to benefits being actualised (to include both direct I.e., regulatory and discreet I.e., conflict barriers).
- Develop indicators to support an appropriate social impact assessment.
- Map out resilience landscape and differential adaptive capacity (looking at adaptation capacity, strength and vulnerabilities/rate of decline)
- Identify opportunities for co-management with shared goals and responsibilities (enforcement/ monitoring/ delivering/ evaluating)
- Map out historical analysis of change for pertinent communities
- Scoping out what matters most to different aspects of the fishing sector in order to enable them to live well
- Scope out what is needed to develop human and social capacity I.e. skills needed, training opportunities etc. To build capacity longer term

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Responding to climate change within the seafood sector requires consideration of both how the sector can mitigate climate change and how the sector can adapt to climate change. This subsection therefore explores

- Climate change impacts on focal fish species distribution and behaviour
- Climate change impacts on fisheries
- Climate change pressures generated of fishing

Emerging evidence needs

Undertake research into the impact of climate change on Channel demersal NQS

Explore species distribution, centres of population and changes in habitat suitability at the local scale

Develop Species Distribution Models for missing species and improve confidence in existing models

Collate or collect further information on phenology to explore any changes in focal species

Incorporation of ongoing research including Seafish and MSPACE project that aims to support government in designing and implementing economically viable and socially acceptable climate-smart marine spatial plans

Explore FMP level fleet emissions and opportunities for alternative fuels

Research will be undertaken to identify opportunities to implement climate change mitigation and adaptation measures

Continue work programmes to understanding UK continental shelf carbon stocks and the impacts of trawling disturbance

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Timeline and next steps

We are planning on sharing the final version of the ES to the EAG and WG on the 17th April, with responses to be submitted by the 25th.

This gives us time to address and react to any forthcoming comments ahead of the Pre-gateway internal sign off on the 9th May.

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