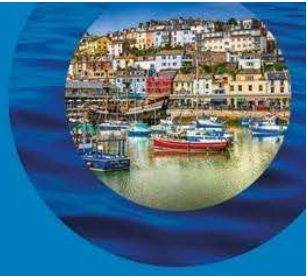
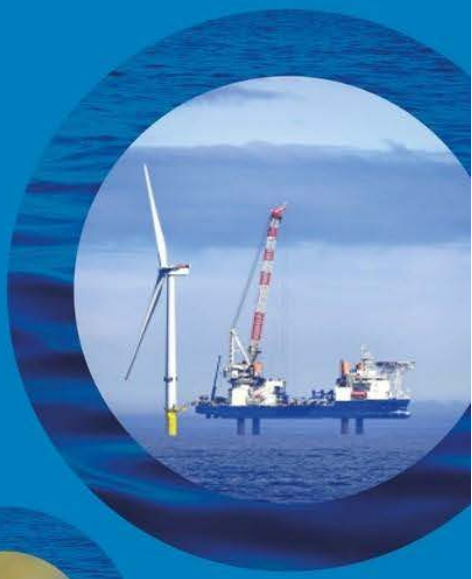
Marine Management Organisation

Cuttlefish Fishery Action Plan

April 2025



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Contents

Version History

Date	Author	Comment
29/05/2024	Laura Lovett & Alex Murphy	First draft v1.0
31/05/2024	Callum Williams	Review
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1. Background and Rationale

Marine Management Organisation (MMO) has been tasked by the Department for Environment, Food and Rural Affairs (Defra) to develop an action plan for the cuttlefish fishery, a specific short-term measure from the Channel Demersal Non-Quota Species (NQS) Fisheries Management Plan (FMP), which covers International Council for the Exploration of the Sea (ICES) divisions 7d and 7e.

The Channel Demersal NQS FMP published in December 2023, highlighted the cuttlefish fishery as a data poor species, where data is currently recorded at genus level rather than at specific species level and has no formal ICES stock assessment. The FMP further identified the cuttlefish fishery as being of high economic importance and a critical targeted fishery at risk of over exploitation. The first short-term measure set out in the FMP for cuttlefish is for MMO and Defra to develop and publish an action plan for the management of the cuttlefish fishery.

2. Stakeholder Engagement Summary

A stakeholder round table meeting was held on 15 February 2024 in Portsmouth where initial views and opinions were gathered on the management and issues of the cuttlefish fishery. From 13 -15 May MMO held a cuttlefish roadshow in Newlyn, Brixham, Shoreham-By-Sea and Hastings to build on initial findings of the stakeholder meeting and to gather a wider understanding of stakeholder views to develop the action plan. A questionnaire was developed for the roadshow to aid gathering stakeholder views on the status of the cuttlefish fishery, the proposed FMP management measures for cuttlefish and the future appetite of industry to be involved with improving data and evidence of the fishery. Stakeholders who were

unable to attend in person were invited to complete the online questionnaire or provide views via email.

2.1. Roadshow Outputs Summary

The roadshow outputs were collated from responses from the in-person stakeholder engagement, the questionnaire and email responses. Responses were received from a varied group of stakeholders: individual fishers, Producer Organisations, trawler agents, fishing associations and environmental non-governmental organisations (eNGOs). Inshore Fisheries Conservation Authorities (IFCAs) also contributed their views. Below is a summary of the key themes of those collated responses, it is important to note that the below are presented as views shared by stakeholders, not those held by MMO.

- The fishery is thought to be generally in good health, no specific management of fishery required.
- Cuttlefish is very important to fishers along the south coast, often making up a large proportion of their income. Restrictive management (e.g., Minimum conservation reference size (MCRS) could have severe economic consequences for fishers.
- The fishery is naturally variable due to cuttlefish life cycle and is significantly impacted by temperature and bad weather.
- More data and research is needed to understand the fishery and species biology. Lack of specific European Union (EU) landings data is highlighted as a key data gap.
- There is a lack of knowledge and ability to differentiate between cuttlefish species caught in the Channel.
- There is general support for voluntary codes of practice for cuttlefish trap handling, although risks associated with gear loss or damage were highlighted.
- Cuttlefish are understood to be voracious predators and can impact populations of other species.
- Increases in cuttlefish predator populations (seals, seabass, dogfish etc.) result in localised issues.
- The current 80mm mesh size on beam trawls is unfavoured by many (inefficient and not environmentally friendly) and it is suggested that mesh size should be 100mm across the board. Beam trawlers unwelcome in the inshore.
- Trawlers were highlighted for catching large quantities of small/juvenile cuttlefish, which could impact breeding stock and inshore fishery.
- The biggest impact on cuttlefish was said to be from flyseiners and large trawlers. It was suggested that if any management is brought in it should focus on these vessels.

- Torbay, Sidmouth Bay, Exmouth, Start Bay and Hurd's Deep were highlighted as important areas for cuttlefish. It was suggested that management of trawling effort in Hurd's Deep could protect over-wintering stock.
- Shoreham/Sussex localised issue: reports of cuttlefish decline were attributed to potentially large quantities of pollutants in the area (resulting from industry and dredging), in addition to windfarms and habitat loss (kelp beds). This was proposed to be considered as a potential research project.

3. Cuttlefish Fishery Action Plan

The FMP aims to sustainably manage Channel Demersal NQS through robust stock assessments, data collection and research. It emphasises adaptive management to implement the FMP goals allowing development to be iterative as the evidence base improves. The FMP's vision is to achieve environmental, social and economic sustainability for coastal communities and the wider society. The FMP goals are focussed on key themes of evidence, social and economic and sustainable fisheries, contributing towards delivering the Fisheries Act objectives. The FMP goals are as follows.

1. **Sustainable fisheries:** Deliver effective management of demersal NQS fishing in the English Channel that contributes to improving wider biological sustainability.
2. **Social and Economic:** Optimise economic and social benefits and build industry capacity to input into matter effecting NQS fisheries management.
3. **Evidence:** Better understand wider NQS evidence gaps and develop the evidence base.

3.1. Action Plan Goals

During the development of the FMP stakeholders identified the common cuttlefish as a critical target fishery at risk of over exploitation. It's short life span needs to be considered as part of the management strategy to promote recruitment and maintain population size. Due to the fishery's importance to fishers and concerns surrounding its potential overexploitation, the FMP recommended the development of an action plan for the cuttlefish fishery. However, through MMO stakeholder engagement at the roundtable workshop in February and the cuttlefish roadshow 13th-15th May, many stakeholders suggested that the cuttlefish fishery was generally in good health and did not require any specific management. Most stakeholders suggested that gathering further evidence and data about the fishery was needed before imposing any management. Following engagement and analysis of landings data, MMO are not looking to introduce any formal management at this time as there is no clear indication that the fishery is being exploited beyond sustainable limits.
The long-term aim of the action plan is to deliver sustainable exploitation of the cuttlefish fishery, however in the first iteration of the action plan aims to introduce

greater monitoring and data collection to help inform future management, including testing technical measures for stock conservation.

To support the delivery and implementation of the Channel demersal NQS FMP in relation to the cuttlefish fishery the action plan goals have been grouped into three distinct themes that align with the FMP goals:

- Sustainable fisheries goals
- Evidence goals
- Social and economic goals

Sustainable fisheries goals overarching aim is to preserve the long-term sustainable use of fisheries resources whilst at the same time maximising any potential environmental, social or economic benefits. Under the sustainable fisheries management theme, the FMP have proposed two fisheries level goals. The first goal, 'Deliver effective management of demersal NQS in the English Channel', is focused on stock management and progress towards regulating catches. The second goal, 'Deliver wider biological sustainability', has two sub goals. The first sub-goal is focused on the stock, environmental interactions and non-fishing pressures. The second sub-goal is focused on environmental management of fishing impacts. The FMP identified cuttlefish as a data poor species and without a formal ICES stock assessment indicating maximum sustainable yield (MSY). In the absence of data, there should be a precautionary approach to fisheries management, whilst maintaining the economic viability of the fishery. Furthermore, the development of a harvest strategy to improve data and evidence to support the development of a future stock assessment of the cuttlefish fishery. Sustainable goals will identify and mitigate pressures on the cuttlefish fishery, through understanding and defining the behaviour of the fleet and fishing effort. Furthermore, they will help ensure appropriate protections for key life stages of cuttlefish.

Social and economic goals aim to continue to deliver social and economic benefit to coastal communities, ensuring industry continues to operate for future generations. Secondly, they provide the fishing community a mechanism to enable meaningful engagement between regulators and industry to ensure transparency and collaborative working. Subsequently, the FMP has goals which fall under the theme of social and economics. Within this theme are two goals: 'to better understand and optimise social and economic benefits whilst minimising impact to the environment' and to 'build capacity for the industry to be able to input into matters effecting NQS fisheries management'. The action plan aims to identify who is reliant on the fishery and who is impacted by any formal management measures that may potentially be introduced. It aims to understand the direct and indirect social and economic benefits of groups identified and target potential management appropriately to maintain and optimise benefits.

The evidence goals outline an approach to data collection that supports the development of the FMP's vision and goals, underpinning the social and economic and sustainable fisheries themes. The FMP proposes two main evidence goals, 'better understand the wider evidence gaps' to build on the evidence statement to consolidate and prioritise evidence gaps, and to 'develop the NQS evidence base',

consolidating and streamlining the evidence gathering processes. The action plan will identify evidence requirements for the cuttlefish species and fishery to increase the data and evidence base to inform appropriate management of the fishery.

In terms of delivering the action plan goals, short-term is considered to be within 2 years of publication of the plan and medium-long term is 3 years or more following publication.

3.2. Action Plan Summary Table

Goal	Action	Action Description	Timeframe	Start Date	Review Date
Sustainable Fisheries	1	Voluntary Codes of Practice on cuttlefish trap handling in English waters within ICES divisions 7d and 7e from the 6 - 200 nm zone	Short-term	Apr-25	Sep-25
Sustainable Fisheries	2	Selectivity gear trials with FPO's	Short-term	TBC	TBC
Sustainable Fisheries	3	CPUE analysis of vessels targeting cuttlefish	Short-term	Apr-25	Jul-25
Sustainable Fisheries	4	Cefas investigate the potential development of a Harvest Control Strategy for cuttlefish	Short-term	Oct-24	Apr-25
Evidence	1	Implement and deliver cuttlefish ID cards to Industry	Short-term	Oct-24	May-25
Evidence	2	Market Sampling at Newlyn and Brixham Fish Markets	Short-term	Nov-24	Sep-25
Evidence	3	Defra research and development commission - assess benefits of underwater structures to cuttlefish egg survival	Medium – long term	TBC	TBC
Evidence	4	Collaboration with stakeholders to fulfil evidence and data gap projects	Short-medium term	TBC	TBC
Social & Economic	1	Second round of in-person stakeholder engagement with industry	Short-term	May-25	TBC

3.3. Sustainable Fisheries Goals

Action 1

MMO to develop and introduce a voluntary code of practice on cuttlefish trap handling in English waters within ICES divisions 7d and 7e from the 6 - 200 nm zone. This will be circulated to IFCAs for their consideration for adoption of a practice for their district.

Rationale: Cuttlefish breed once and die soon after laying their eggs, they lay their eggs on traps/pots, ropes amongst other natural substrata like sea grass and seaweeds. Due to their short life cycle, it is important to maximise the number of eggs that reach maturity and subsequently recruitment. A short- to medium-term measure set out in the FMP for cuttlefish was to consider the introduction of voluntary codes of practice on trap handling. The aim of this code of practice is to protect and increase the survivability of cuttlefish eggs that have been laid on traps/pots. Currently many fishers clean the cuttlefish eggs off throughout the season and clean the traps/pots before being put into storage or stacked on pontoons until further use. This results in mortality of large numbers of eggs due to damage and removal from the water. The code of practice will aim to minimise the damage and mortality of the cuttlefish eggs that have been laid on traps/pots. Following the advice will enable eggs to develop and hatch and therefore potentially repopulating the cuttlefish fishery.

Timeframe: Short-term

- Development time: 3 months
- Go live date: April 2025
- Review date: September 2025

Indicators:

- Voluntary Codes of Practice (vCoP) will be developed and written for ICES 7d and 7e, within English waters within the 6-200 nm.
- The MMO vCoP will be developed from the existing Southern IFCA code of practice on cuttlefish traps and Sussex IFCA Cuttlefish Good Practice guide. This will allow consistency and alignment with measures already in those districts and if adopted by other IFCA districts a continuity of practice across those districts.
- Notification to industry through comms; .gov website, notify system, emails to industry groups, Regional Fisheries Groups (RFGs) and IFCAs.
- Monitor evidence of uptake through routine MMO enforcement strategy (log intel reports), Marine Officers (MO) and RFG teams.
- Monitoring efficacy of voluntary measures using catch data to see if any increases in abundance. Monitoring of catch data to be conducted monthly following the potting season in 2025.

Action 2

Cornish Fish Producers Organisation (CFPO) and Western Fish Producers Organisation (WFPO) to potentially further explore carrying out gear trials to improve selectivity while targeting cuttlefish.

WFPO proposed a potential gear trial to improve gear selectivity (stern trawlers and beamers) with regard to small cuttlefish.

- A trial on the stern trawlers with square mesh in the belly. This is thought to be the best option as they are already working 100mm minimum in the codend, which requires fishing 106mm new to allow for shrinkage.
- A trial on beamers with square mesh in the codend.

CFPO proposed a potential gear trial using a beam trawler with a dispensation for a twin rig trawler to work an 80 mm and 100mm mesh to analyse the difference between catch composition data for 80 mm and 100 mm mesh.

Rationale: To protect juveniles or small cuttlefish the management measure MCRS for cuttlefish was proposed in the draft Channel Demersal NQS FMP, consulted on in 2023. Following consultation this was removed due to likely significant social and economic impacts on industry. The aim of these gear trials would be to improve selectivity and reduce the number of juveniles and small cuttlefish being caught while trawling and targeting cuttlefish.

Timeframe: Short-term

Western FPO:

- Development time: 3 months
- Go live date: TBC
- Trial duration – approximately between 5 – 10 days
- Report publication date of trial: TBC

Cornish FPO:

- Development time: 3 months
- Go live date: TBC
- Trial duration - approximately 1 week
- Report publication date of trial: TBC

Indicators:

- WPO and CFPO to submit gear trial proposals to MMO by TBC.
- WPO begin gear trials monitoring and recording catch composition on target species cuttlefish using different modifications and main bycatch species. Overall performance if test gear against control gear and commercial viability of test gear.

- CFPO begin gear trial monitoring and recording the difference between catch composition on target species cuttlefish using an 80 mm or 100 mm mesh. Overall performance if test gear against control gear and commercial viability of test gear.
- WPO and CFPO prepare and submit gear trial review and findings report
- Gear trial report to be shared with stakeholders and industry.
- Evidence base will be increased to help understand the selectivity of juvenile and small catch and compatibility with increased mesh size or gear modifications.
- MMO to assess potential measures to increase selectivity of trawl gear in response to trial findings

Action 3

MMO to investigate and analyse catch per unit effort (CPUE) of vessels targeting the cuttlefish fishery.

Rationale: Investigating fishing effort data was identified as an FMP evidence gap. Stakeholder engagement anecdotal evidence from industry raised concerns regarding trawlers catching larger quantities of the stock which has affected the inshore potting/trap fishery. The aim is to investigate CPUE to ascertain whether trawling effort is having an impact on landings and the inshore fishery.

Timeframe: Short term

- Review throughout cuttlefish fishing season to monitor if species recording using cuttlefish I.D. cards has improved.
- Update stakeholders at 6 monthly review periods.

Indicators:

- Time series analysis of CPUE of overall fleet, gear type and vessel size, overlaying landings data up to and including 2023.
- Consider spatial analysis of CPUE of overall fleet, gear type and vessel size, overlaying landings data up to and including 2023.
- Continued monitoring of effort within the English Channel, ICES 7d and 7e
- Evidence gathering to consider whether temporary closures for trawlers would be a viable and beneficial measure, environmentally, socially and economically.

Action 4

Cefas to investigate the potential development of a Harvest Control Strategy for cuttlefish.

Rationale: There were mixed views from stakeholders where concerns were raised over its over exploitation through the development of the FMP and conversely MMO engagement heard anecdotally that the fishery was generally in good health and there was no need for formal management. The FMP identified the cuttlefish fishery as data deficient due to no formal stock assessment and the recording of landings data to genus level rather than species specific data.

Harvest strategies are an effective feedback loop which can account for scientific uncertainty and variability and increase transparency and predictability of fisheries management. The FMP harvest strategy has a primary objective that demersal NQS fisheries in the English Channel will be managed sustainably, and that management of these fisheries aims to achieve environmental, social and economic sustainability, benefitting coastal communities and wider society. Whilst there is no clear evidence that the cuttlefish stock is being fished unsustainably. The cuttlefish fishery needs to be better understood to be able to support a stock assessment and evaluate its status and implement sustainable management if required.

Timeframe: Short-term

- Go Live Date: October 2024
- Project End Date: April 2025
- Review Date: April 2025

Indicators:

- Initial work to ascertain whether a harvest control strategy is viable
- Report on initial findings and next steps submitted to MMO April 2025.
- MMO to review finding report and asses next steps with Cefas.

If Cefas can determine the viability of developing a harvest control strategy the development of that would take place over a medium to long term timeframe, below are some of the future potential indicators of that further development.

Timeframe: medium to long-term

- Go Live Date: TBC
- Project End Date: TBC
- Review Date: TBC

Indicators:

- Development of management objectives to provide mechanisms for long term success, that are specific, measurable, have associated timelines and determine uncertainties and levels of acceptable risk.
- Development of suitable proxies such as limit and target reference points (LRP, TRP), that are used as benchmarks to compare current status of fishery against a desirable or undesirable state.

- Development of harvest control rules (HCRs) that set fishing opportunities such as potential catch limits and/ or weight limits.
- Monitoring programme of harvest strategy.
- Harvest strategy tested through management strategy evaluation (MSE) to test if harvest strategy can achieve the developed management objectives set for the fishery before they are implemented.

3.4. Evidence Goals

Action 1

MMO to design education material in the form of species I.D Cards and add three cuttlefish species codes to Catch App and iFish database for fishers and coastal teams to improve cuttlefish species data.

Rationale: Currently fishers record cuttlefish landings under a general code for cuttlefish, bobtails and squids (CTL). An evidence gap was identified in the FMP to collate landings data to species level for cuttlefish. There are currently three known species of cuttlefish that are caught in UK waters, common cuttlefish (*Sepia officinalis*), elegant cuttlefish (*Sepia elegans*) and pink cuttlefish (*Sepia orbignyana*). This action will be primarily aimed at the pot/trap fishery as identification of species from trawlers could be more challenging due to quantity landed, however, trawlers would be strongly encouraged to identify and record where possible. The aim is to improve the quality and accuracy of landings data being recorded to provide evidence to develop and improve data poor stocks and establish distribution and spawning grounds. These improvements will support the establishment of MSY or other sustainability assessments in the future.

Timeframe: Short-term

- Development time: 3 months
- Go live date: October 2024
- Review date: May 2025

Indicators:

- Three cuttlefish species will be added to Catch App, Catchlog and iFish database.
- I.D cards will be developed and printed for industry.
- Education and engagement implemented, MMO (MO, RFGs), IFCAs and PO’s.
- Monitor Catch App (Under 10m vessels) for recording of new species.
- Monitor logbook data (over 10m Vessels) for recording of new species.
- Review the numbers of each species at start (04/2025), middle (05/2025 and end of the potting/trap season (07/2025).

- Marine Officers review effectiveness and accuracy of species identification by comparing cuttlefish species landed to species recorded in Catch App and logbooks.
- Monthly monitoring of market sampling project (Action 2 below).
- Yearly review of landings and spatial data for individual cuttlefish species (08/2025).

Action 2

MMO to undertake market sampling of cuttlefish at Newlyn and Brixham Fish Markets.

Rationale: The market sampling of cuttlefish is a way for the MMO to test the efficacy of the I.D cards and to gather evidence on the size and particular species of cuttlefish and catch composition throughout the season. Gather evidence on fishing practices, gears use, spatial and temporal data of landings across the sector.

Timeframe: short term

- Go Live Date: November 2024
- Will cover trawling and potting seasons
- Interim Review Date: May 2025
- Final Review Date: October 2025

Indicators:

- Monthly monitoring programme throughout the cuttlefish fishing season of size and cuttlefish species carried out by MMO coastal teams (MO's and RFGs).
- Gather information on catch composition at different points through the cuttlefish fishing season.
- Monthly monitoring of species ID during sampling programme.

Action 3

Defra Research and Development (R&D) to commission experiments and monitoring to assess benefits of underwater structures to cuttlefish egg survival.

Rationale: Cuttlefish breed once and die soon after laying their eggs, they lay their eggs on seaweeds, seagrass, sessile animals, and artificial structures such as fishing traps/pots. Due to their short life cycle, it is important to maximise the number of eggs that reach maturity and subsequently recruitment. The aim of this study is to assess the benefits of underwater structures and whether they can increase the survivability of cuttlefish eggs.

Timeframe: Medium-long term

- R&D commission is for 1-year experiments and monitoring will take much longer than 1 year and possibly missed the season this year (i.e. reproductive cycle of cuttlefish). This action will be considered next year.

Indicators:

- Initial work to understand whether cuttlefish are using these structures.
- Research and monitoring over a longer term to assess benefits of underwater structures to cuttlefish egg survival.

Action 4

Collaboration with stakeholders (industry, industry representatives, academia etc.) to fulfil evidence and data gaps projects identified for cuttlefish (Potential Evidence commission list in Annex).

Rationale: The FMP is evidenced based and includes policy, legislation, scientific papers and reports but also expert opinion, local knowledge and intelligence from industry and the values and concerns of those who may be affected by the FMP. For the FMP to meet the FMP goals, evidence is required to be gathered and collated through a combination of in-house expertise, commissioning experts, MMO working in partnership with Defra and collaborating with stakeholders including industry and academia. The aim of this action is to fulfil several of the evidence/data gaps that were identified in the FMP evidence statement and through cuttlefish stakeholder engagement.

Timeframe: short-medium term

Indicators:

- List of potential evidence commissions circulated to stakeholders.
- Uptake of evidence commission projects by stakeholders such as industry, industry representatives and through academia.

3.5 Social and Economic Goals

Action 1

Conduct a second round of in-person stakeholder engagement with industry, firstly a roundtable followed by a roadshow in key areas.

Rationale: Stakeholder engagement is key to understanding who is reliant on the fishery and who has been impacted by any management measures that have been introduced. The aim of this second round of engagement is to review the initial short-term actions implemented and get an understanding of stakeholder's opinion and how these actions may have impacted or benefitted them socially and economically.

Timeframe: short-term

Indicators:

- Cuttlefish stakeholder roundtable engagement May 2025
- Cuttlefish Roadshow June 2025
- Findings report published

3.6 Review

This is the first iteration of the cuttlefish fishery action plan. The action plan serves as a tool to set out specific tasks to work towards the longer-term goal of sustainable management of the cuttlefish fishery. The action plan is an adaptive process and will be reviewed at least every six months. Stakeholder engagement will follow the six-monthly review if the MMO feels there is a need to do so based on the evidence and the effectiveness of the plan. Monitoring data and updates on the goals outlined will be reported on and published annually. However, if new evidence or evidence from monitoring of the current plan emerges an interim report will be published and the action plan adapted.

Annex

Channel Demersal NQS FMP Evidence Statement

The Channel Demersal NQS FMP evidence Statement can be found at Fisheries Management Plans Evidence Statements - MF1298 under the 'Projects documents Section', **Summary Report: Channel Non Quota Species FMP Evidence Statement**. Species specific data can be found in 'Annex Two: Species overview and stock Status' of the FMP Evidence Statement.

Channel Demersal NQS FMP Research Plan

There were 7 accompanying documents published as a collated Annex for the public consultation in 2023 for the Channel Demersal NQS FMP, which can be found at Annexes for the proposed Channel non quota species FMP. Annex Two of the collected annexes details the 'Research Plan' for the FMP and details the evidence gaps and strategy for addressing them.

Potential Evidence Commissions

1. Investigate the impact of the Rampion windfarm on the local cuttlefish population. Anecdotal remark that construction of the windfarm led to localised disappearance of cuttlefish. Potential drivers were construction destruction and smothering impact on local ecosystems – habitat degradation and recovery, or impact of electromagnetic fields (EMF) or operational noise as a deterrence for cuttlefish.
    a. a. Simple checks:
        i. Test whether anecdotal concerns raised exists either side of the wind farm or whether this is very locally specific. Anecdotally, cuttlefish pot landings are doing well either side of windfarm.
        ii. Validate this and ground truth by revisiting the area.
    b. Potential additional evidence to be explored.
        i. Fish surveys carried out by the windfarm.
        ii. EMF influences on cephalopods - Natural England are looking at telemetry mapping using acoustic tags and receiver arrays around windfarms. Potential to explore this with other species (i.e. like cuttle) to monitor avoidance behaviours.
        iii. Does the timelines of this align with the reduction of pot landings.

2. Potential research project investigating reported localised declines in Shoreham/Sussex Bay area, high levels of pollution in the area.

3. Cuttlefish are a voracious predatory species. Look at landings data for other species (locally) when cuttle has had a bumper year. Anecdotally reported that after a good cuttle year, catches for other species decline.

4. Potential research project into Prey/predator relationships and ecosystem modelling.

5. Baseline analysis of social and economic importance of the cuttlefish fishery.

6. Explore evidence from processors. Vessels will provide a market grade for sales notes. This is low resolution data which will determine whether landed cuttlefish are 1st or 2nd year individuals. Processors utilise tighter grades. *Request to industry to source and provide these data on grade sizes and records for processed cuttlefish.

7. Explore the efficacy of IFCA measures for stock protection – i.e. spatial restrictions, pot limits.

8. Cuttlefish tagging project – determine species movement throughout the season. Of benefit to the Sothern North Sea FMP which witnessed an increase in cuttle spawning.
    i. Some research already conducted on this. However, studies from 2013 and on small number of individuals. Did show highly variable movement patterns between individuals (some stayed local, others moved large distances along coastline).

9. Explore cuttlefish potting in Torbay. Historically identified as a key spawning destination. Is this still the case? Does IFCA conservation measures protecting seagrasses contribute to cuttlefish spawning? What impact does de facto protection through fisheries exclusion – i.e. aquaculture, infrastructure – have on cuttlefish spawning opportunities?

10. Determine what sustainable fishing for cuttlefish could look like from an exploitation perspective – is it possible to selectively to target 1st year individuals, 2nd year individuals or if both, what level of extraction can be supported.

11. Investigate the impacts of increasing predator population in Shoreham/ Sussex Bay area. Anecdotal remark that increasing predator populations of conger eels, dogfish, bass and seals are negatively impacting on cuttlefish populations.

Bodies responsible: MMO, Defra, Cefas.
Enquiries: SustainableFisheries@marinemanagement.org.uk