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Crawfish (*Palinurus* *spp*) seasonal closure – Response to consultation

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...ambitious for our seas and coasts

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1	Chris Collins	Draft 30/11/2023
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Summary

Introduction

The fishing industry has shared with government concerns regarding the recent increase in crawfish (*Palinurus spp*) landings coupled with an observed increase in the size of the fishery. This included the Marine Management Organisation (MMO), the Department of Environment, Food and Rural Affairs (Defra), Seafish and Inshore Fisheries and Conservation Authorities (IFCAs).

The UK Fisheries Administrations (UKFAs) are committed to ensuring fisheries are managed to a level where stocks are healthy and fished sustainably, environmental damage is minimised, and economic return is maximized whilst ensuring sustainable exploitation.

Following a [co-design workshop](#) held on 3 October 2023, MMO opened a consultation from 13 to 27 November 2023, to seek views and additional evidence on management measures in relation to crawfish, specifically a seasonal closure in ICES area 7. Further information can be found here: [Crawfish fishery seasonal closure ICES area 7](#).

MMO received 40 responses to the consultation and have considered and reviewed all evidence and views provided. This decision document provides rationale for MMO's decision and details a summary of the consultation responses and MMO's response to key themes raised by stakeholders through the consultation.

Outcome

MMO, on behalf of UKFAs and IFCA's, will implement a closure of the crawfish fishery from 5 February to 30 April 2024 in English waters of ICES area 7. The closure will apply to all UK and EU vessels. The closure will be implemented via a licence condition and will prevent the fishing, retaining on board, storing or landing of crawfish with no bycatch allowance. This closure length will protect berried and juvenile crawfish whilst balancing socio-economic considerations, fulfilling EU notification obligations and allowing the shellfish industry time to adapt business processes.

In making this decision MMO has considered national policy such as relevant marine plans and the Joint Fisheries Statement to ensure the short term social and economic risks have been balanced with long term health of the marine environment that provides resilience to coastal communities whilst protecting crawfish for the future.

This decision does not set a precedent for any potential future management proposals and will only apply to 2024. Future decisions and restrictions will be made using the best available scientific evidence and with input from a cross section of the crawfish industry and other stakeholders, alongside the implementation of the crab and lobster fisheries management plan (FMP).

Consultation responses and feedback from the co-design workshop indicated that further measures may be required to ensure long-term sustainable fishing of the crawfish fishery. As such MMO is considering whether additional management measures are required including potential effort management. A workshop to discuss potential options is due to be held in mid-February 2024 and will run alongside a consultation exercise. MMO will share further details in due course. If you wish to be involved please contact effort@marinemanagement.org.uk.

Rationale

Background of the fishery

Landings for crawfish increased from 19 tonnes in 2012 to 55 tonnes in 2022. The number of vessels targeting the species (landing over 50kg/year) has risen from 10 -15 vessels in the early 2000s, to exceeding 50 vessels in 2021. The largest sector in this fishery is the under 10m fleet, averaging 58% of all landings from 2012 to 2022.

The gear fishers use to catch crawfish has changed; in 2012 there were almost equal landings across all fleet sectors from pots and nets, in 2022, over 60% of all landings from all fleet sectors were from nets.

Crawfish is typically a summer fishery, Over the last decade the monthly landings curve has widened, indicating a lengthening of the fishing season. In 2012 landings typically took place between June and October. Fishers have since started to access the fishery earlier in the year (around May) and continue later into the year (to October or November), some vessels also fish into December to access the Christmas markets.

There are limited national measures for crawfish, with most measures being implemented locally through IFCA's. Although there are currently no measures in place,

nationally or locally to limit fishing effort on English crawfish stock, additional management measures to support the recent concerns from the fishing industry include the recent MCRS increase from 95 mm to 110 mm.

Further information on legislation and current management measures can be found in the consultation document [Crawfish fishery seasonal closure ICES area 7.](#)

Scientific considerations

Fishing pressure can deplete the spawning stock and impair recruitment, leading to reduced fishery productivity and resilience with an increased risk of a stock collapse.

Current increases in fishing effort are concerning given the absence of a valid stock assessment, which creates uncertainties around stock status and how much fishing pressure crawfish stocks can sustain. This creates challenges for long term sustainable management, particularly in the context of a historical 'boom and bust' and data-limited fishery.

Crawfish are also a species of conservation importance and designated feature in Marine Conservation Zones (MCZs) in the southwest of England, there is a risk that even maintaining the current levels of removal in crawfish populations in the southwest will hinder the recovery of the conservation objectives of the site.

The purpose of a seasonal closure is to:

- Provide additional protection and spawning potential by decreasing the number of removals and interactions with fishing activities.
- Improve spawning potential by increasing the likelihood that crawfish can spawn and moult before interacting with fishing activity.
- Improve the subsequent recruitment of juveniles into the fishery by protecting berried females for a specified period and allowing for settlement of juvenile stock.
- Decrease the fishing activity and removals when fish are in a poor condition and more likely to suffer from high rates of mortality.
- Reduce the risk of nets being left for long soak times or lost during the unpredictable winter weather.

Data recording fish lengths supports the anecdotal evidence that the fishery has seen large amounts of juvenile fish in recent years. However, the increase in juvenile crawfish seen in 2018 and 2019 has not been replicated in more recent surveys. The seasonal closure offers protection and opportunity for further recruitment.

Moulting typically takes place at depth between June and October, with mating typically occurring two weeks after females moult, and egg laying two weeks after mating. This means that Atlantic females are typically berried from mid-autumn to late spring. After around nine months of egg bearing, eggs hatch between March and June. Therefore, a closure could provide protection during a large proportion of the time when females are berried and during the settlement of juvenile stock, with the longest closure duration providing the best protection. This concurs with responses from the consultation, with some respondents being in favour of a mid-December 2023 to 31 May 2024 closure indicating that this option provided the most effective measure for long-term the protection of the fishery.

Social and economic considerations

The average price per kilo for crawfish has remained fairly static since 2012 when the average price per kilo was £22.95 and £24.60 per kilo in 2022. Using this average, it could be assumed that in 2022 the value of UK landings over the potential closure periods were approximately £23,500 for 1 January – 31 March, £35,800 for 1 January – 31 May and £73,800 for 1 December – 31 May. There is limited EU activity, with 1.1 tonnes landed in 2022 and 1.3 tonnes in 2023 (up to November) in ICES area 7.

From November to April as landings reduce and particularly during the Christmas season the price for crawfish may increase. This was corroborated with some consultation responses, with fishers stating that the Christmas market is important to them as well as merchants. Others suggested that merchants had the capability to store fish for the Christmas market, and so could support an earlier closure.

Some responses also suggested that although a closure would impact fishers economically by preventing earning money from landing crawfish during winter months, they would be willing to do this if the result is a long-term healthy and sustainable fishery.

Respondents also suggested that during the winter crawfish are considered to be in poor condition and targeting of poor condition animals will negatively affect the price. A closure would enable those to land the species later in the year when in better condition and earn the best price for their catches.

Legislation and policy considerations

MMO has obligations with regards to legislation and policy including, but limited to:

- Being mindful of the principles of public law which includes requiring measures to be necessary and expedient for the regulation of sea fishing, as well as being proportionate and enforceable.
- Under the [Trade and Cooperation Agreement](#) article 496(3), notifying the EU about new measures which are likely to apply to their vessels. It has been agreed that 45 days' notice should be provided prior to new measures being applied.
- Reviewing the crawfish fishery from an environmental, social and economic perspective, in line with its obligations under the [Fisheries Act 2020](#).
- Delivering policies in line with the fisheries objectives as an obligation under the [Joint Fisheries Statement](#). Those most relevant to crawfish are the sustainable, precautionary and ecosystem objectives.
 - This crawfish seasonal closure proposal aligns with the sustainable objective to ensure the short term social and economic risks have been balanced with long term health of the marine environment. It provides resilience to coastal communities whilst protecting crawfish for future fisheries.
 - The crawfish seasonal closure proposal aligns with the precautionary objective because action is required due to the rapid increases in fishing pressure, the fleet profile has changed with an increase in larger vessels in the fishery.
 - The crawfish seasonal closure proposal aligns with the ecosystem objective in that any negative impacts on crawfish is minimised.
- Having regard to national and international agreements as outlined in the [Joint](#)

[Fisheries Statement](#). These include the [Marine Strategy Regulations 2010](#), which require fishery bodies in the UK to take action to achieve or maintain Good Environmental Status (GES) in all UK waters and the [UK Marine Strategy](#) which is a key pillar of marine policy in the UK.

- Delivering in line with [MMO strategic goals](#) specifically, goal 6 - Assure the sustainable and transparent management of fishing opportunities to achieve a resilient and increasingly viable fishing sector.
- Aligning with the crab and lobster [fisheries management plan](#) including proposed management measures and having due regard to responses on the consultation when making decisions.
- Aligning with and being compliant with objectives in any relevant marine plans. The UK Government is committed to improving and protecting the natural environment, delivered in part through improved management of the marine environment which includes the [South West Marine Plan](#). Objectives in the southwest marine plan relevant to the crawfish closure are, achieving a sustainable marine economy and living within environmental limits.
- Complying with our public sector equality duty under the [Equality Act 2010](#). MMO has considered if people with any protected characteristics are likely to have different needs in relation to the decision made within this document or if the decision is likely to present unequal opportunity, result in discrimination or fail to foster good relations between people with different or diverse characteristics. The MMO has very limited data on protected characteristics of people who fish in ICES area 7 for crawfish however the MMO does not consider the decisions made will discriminate or disadvantage people with protected characteristics. MMO would welcome any comments or information on this matter if required.

Consultation

Methodology

This consultation was preceded by a co-design workshop held on 3 October 2023, which suggested management options for the crawfish fishery including an increase to the marine conservation reference size and a potential closure. Following this MMO ran a consultation on the [crawfish fishery seasonal closure in ICES area 7](#) from 13 to 27 November 2023. MMO aims to balance the length of consultation with the specifics of the fishery. This means that the style and length of any consultation will vary. On this occasion a two-week consultation was chosen due to the timing of the proposed closure options.

The consultation was published online and was publicised in stakeholder groups such as [regional fishery groups](#), [crab and lobster management group](#) and through media such as [fishing news](#) (23 November 2023) and social media.

Quality assurance

MMO always seek to use the best available evidence to inform our decisions. This consultation provided an opportunity for stakeholders to provide additional evidence to inform the MMO on a seasonal closure in ICES area 7 and development of crawfish management measures.

Knowledge and data are an important part of understanding fisheries. Evidence sources, including information from the fishing industry and local experts, help strengthen our analysis when considering management options for a crawfish seasonal closure.

It is important to understand the strengths and limitations of any evidence to understand how it can contribute to decision making. Any additional information that was provided at the consultation has been analysed and verified through the MMO evidence quality assurance process [MMO quality assurance](#).

Where appropriate and depending on the quality of the evidence submitted compared with that already used, new evidence can be used to inform proposed management measures.

Summary of responses

MMO would like to thank everyone who responded to the consultation. We have reviewed and considered all responses. Your responses will allow us to make the most informed management decision as possible.

During the consultation 40 responses were received by email. These included responses from individuals, fishers, nongovernmental organisations, industry, and other government departments. Please be aware that a response may be provided by an individual or a stakeholder group and therefore MMO not only considered the number of responses but the reasoning and evidence provided.

Responses to consultation questions

We asked:

1. A proposed prohibition of retaining and landing crawfish (*Palinurus spp*) in English waters of ICES area 7 for all UK and EU vessels using all gear types during the following:
 - a. No closure
 - b. From mid December 2023 to 31 May 2024
 - c. From 1 January 2024 to 31 May 2024
 - d. From 1 January 2024 to 31 March 2024

Summary of consultation responses:

The table below indicates the number of responders for each closure option.

Closure options	Responses
a. No closure	2
b. From mid December 2023 to 31 May 2024	22
c. From 1 January 2024 to 31 May 2024	9
d. From 1 January 2024 to 31 March 2024	5

The overwhelming majority (95%) were supportive of a closure, with most (90%) in favour of a closure to protect the fishery during the winter months.

55% were in favour of a mid-December 2023 to 31 May 2024 closure indicating that this option provided the most effective measure for the protection of the fishery. This was balanced with other respondents wanting a closure beginning 1 January 2024, in order to retain Christmas market opportunities whilst providing equitable access to all vessels, particularly during winter months when access to the fishery by smaller vessels may be limited.

Some respondents suggested the shorter closure option of 1 January to 31 March 2024 to match the French Brittany closure and provide equal access across all vessels. Several responses recommended an even later closure towards the end of June, allowing time for the crawfish to migrate into shallow water.

One response suggested a staggered approach to closure dates based on vessel size and consideration of a seasonal closure during the summer, citing a more effective reduction in fishing effort and a more beneficial period to protect the stock.

A response to the no closure option suggested a high probability of negative implications including loss of income, citing the lack of credible evidence or case studies that would support the introduction of a closure. Conversely another response stated that a vibrant summer season of five months is ample time to harvest crawfish rather than having an overfished and unsustainable fishery with no long-term gains.

MMO response:

MMO welcomes the support for the proposed closure.

Whilst considering the start of the closure, MMO has balanced notification obligations, consultation responses and socio-economic implications. MMO concluded the start of the closure should be aligned between UK and EU vessels and therefore the closure will begin from 5 February once the notice period has been completed. This will also allow time for the industry to prepare for the closure and for the Christmas market.

With regards to the length of the closure, MMO considers the longer duration will be more effective in the protection of the fishery. MMO has balanced this consideration with consultations responses and socio-economic considerations and has concluded a closure until 30 April will provide a suitable balance. Although this closure length was not specifically an option as part of the consultation, it is shorter than the longest proposed closure length and therefore MMO considers it to be within scope of what the closure was intending to achieve.

We asked:

2. Do you think the proposed prohibition on retaining and landing crawfish is likely to result in displacement of fishing effort from UK and EU vessels?

a. Do you think there will be spatial (into different areas) and/or temporal (fishing at different times of the year) displacement?

b. What is the likely impact of any displacement caused by the potential closure?

c. Should the closure extend to all waters in ICES area 7 or exclude certain areas e.g., inside 6 nm.

Summary of consultation responses:

There were 12 direct comments to this section, five responses indicated either that there would be no displacement, one response indicated some displacement but that it

would not be of primary concern. The remainder indicated a temporal displacement mainly at the start of the open season where no other control of effort exists and therefore impacting on other fish stocks. Responses indicated that vessels built specifically to target crawfish with no option of diversification would be forced into other areas, and fishers raised concerns of displacement onto crab and lobster stocks impacting on an already vulnerable fishery.

Responses were unanimous that any closure be extended to all areas in ICES area 7 to prevent displacement of fishing effort and to simplify enforcement. Extending the closure to all areas would support the effectiveness of the measure.

MMO response:

MMO is conscious that any closure will have a displacement impact on stock leading up to the start and at the end of any closure, MMO is aware of this issue and will consider other adaptive management measures with regards to effort. We are mindful of the potential displacement impact of any closure on stocks such as crab and lobster, we will monitor those impacts with continued input from stakeholders alongside the development of the crab and lobster Fisheries Management Plan (FMP).

We asked:

3. How would the proposed prohibition of retaining and landing crawfish in ICES area 7 impact you and your business?

The proposed closure may have a positive and negative impact.

Summary of consultation responses:

There were 11 responses to this question, mostly from fishers, who reported a negative but acceptable economic impact. They also described a poorer quality fish throughout the proposed closure period and that a closure would provide a later economic benefit in allowing the animals to develop during the closure period. Other comments indicated that the combined impact of the closure would be likely to result in a range of socio-economic consequences for the local economy. Other Government organisations responses indicated that the closure would make coastal assurance work straightforward but questioned if the prohibition would include retained, landed and sold as it may be difficult to determine if crawfish had been imported or landed locally.

MMO response:

MMO recognises the economic impact that any closure may have on the fishing industry, the landing data has been considered in the consultation document and whilst we appreciate that this closure will have some economic impact, based on landings data from 2012 to 2022 this is thought to be minimal and appropriate when balanced with the current threat to the stock, and long-term benefit to the fishery.

MMO has considered whether the prohibition should extend to the selling of crawfish, however because the prohibition is administered through vessel license conditions it would not be applicable to buyers, sellers and processors of shellfish.

We asked:

4. MMO is required to provide at least 45 days' notice to the EU prior to a closure coming into effect. This could cause a delay of applying the closure to EU vessels.

Would you be happy to proceed with the chosen option should this be the case?

Or would you prefer for a closure to occur at a later date for all (UK and EU) vessels?

Summary of consultation responses:

Most responses supported the implementation of a closure for UK vessels as a priority, followed by EU vessels after the notification period, stating that reported EU landings of crawfish are minimal and therefore are unlikely to be materially advantaged.

Two responses advocated for a deferment to allow alignment of the closure period between EU and UK vessels, raising concerns around the possibility of an increase in effort by EU vessels and a possible increase in unauthorised landings.

MMO response:

MMO understands the view that a closure is considered a priority to relieve pressure on the fishery and offer protection to the stock. Having considered the risks and benefits to a staggered start of the closure for UK and EU vessels, MMO has concluded the risks outweigh the benefits and therefore the closure will start in February for both UK and EU vessels once the notice period has been completed.

We asked:

5. Should there be an allowable bycatch during the closure period? If so, do you have a suggestion of what this should be?

Summary of consultation responses:

There were 11 comments to this question, four responses supported bycatch measures with comments indicating a financial benefit in a bycatch allowance of 100kg and the allocation of a bycatch allowance for under 10m vessels only. Seven responses from a cross section of fishers, government organisations and conservation were against the implementation of bycatch measures. The general opinion was that a bycatch allowance would not be necessary as crawfish caught alive can be returned, whilst dead crawfish having no landed value can be discarded as not subject to landing obligation. Comments suggested that establishing a bycatch allowance is likely to create a targeting fishery.

MMO response:

Having reviewed the responses MMO view is that a bycatch allowance is not necessary. Industry comments indicate that crawfish when caught in good condition, and handled appropriately have a good survivability ratio, therefore crawfish caught unintentionally can be returned. As part of the crawfish fishery management measures MMO will work with industry experts with regards to crawfish handling and best practice to enhance the survivability of the stock.

We asked:

6. If you are a vessel owner/vessel agent or skipper: in which length group is your vessel; 10 m and under, 10.01 m – 12 m, 12.01 m – 15 m and the over 15 m fleet?

Summary of consultation responses by sector:

Vessel Group	
Under 10m	18

10.01 m – 12 m	1
12.01 m – 15 m	1
Over 15m	1
Producer Organisation	1
Government organisation	4
Processor/Buyer	3
NGO	5
Other	6

The consultation attracted comments from a diverse range of contributors including representation from all fleet sizes, producers and processors, government agencies including IFCA and MMO, non-government organisations and conservation representation.

We asked:

7. Do you have any other comments, including any proposal for alternative closure options?

Summary of consultation responses:

There were 40 comments to this question with all being supportive of management measures, the common theme among the responses was a concern around the increase in effort. Those that were in support of a seasonal closure also indicated that this should be just the start, with hopes that further management measures to address fishing methods and effort be considered urgently to prevent a repeat decline of the fishery.

Comments stated that the crab and lobster fishery was declining, and the larger vessels were switching to crawfish as a supplement, this being the biggest risk to the fishery. The consideration of effort management measures was supported by IFCA districts, urging further management approaches.

Many comments discussed gear restrictions as effort control, with concerns around the significant number of nets and pots some vessels could carry, this included addressing the deployment of mixed gear. The risk of bycatch in the tangle net fishery, ghost fishing and extended soak times were discussed as a major concern for the species.

Quotas and gear restrictions on over 12 m vessels was suggested owing to their ability to fish in poor weather and the amount of gear that can be carried, this compared with the under 12 m fleet that are naturally restricted due to weather and gear capability.

There were also proposals for a permit type fishery based on track record alongside catch limits.

Responses also considered the impact by non-powered vessels, recreational fishing and diving and if prohibitions should extend to these activities.

Responses for the future sustainability of the fishery advocated for a v-notching scheme, this was thought to benefit the species greatly alongside regular stock assessments that include indicators of biomass and fishing pressure, supported by remote monitoring.

Responses made recommendations for research and development into other fishing methods and adaptive management measures which were responsive to stock status.

MMO response:

MMO recognises the weight of concern around fishing effort and the use of gear. We will continue to monitor data whilst considering whether further management measures are required, including effort management. A workshop to discuss potential options is due to be held in mid-February 2024 and will run alongside a consultation exercise. MMO will share further details in due course, if you wish to be involved please contact effort@marinemanagement.org.uk.

The MCRS and closure prohibition is applied via a license condition and therefore not applicable to non-powered vessels, recreational fisherman and divers.

MMO is aiming to work with stakeholders to develop a best practice and handling guide.

Next steps

There has been overwhelming support for the introduction of a closure to protect the crawfish fishery. Following the consultation MMO will implement a closure of the crawfish fishery from 5 February to 30 April 2024 in English waters of ICES area 7. This closure will apply to all UK and EU vessels. This closure length will protect berried and juvenile crawfish whilst balancing socio-economic considerations, fulfilling EU notification obligations and allowing the shellfish industry time to adapt business processes.

The closure will be applied through a licence variation, proposed wording for the licence condition is:

“This licence does not authorise fishing for; retaining on board; storing; or landing crawfish (*Palinurus* spp) caught in English waters of ICES subarea 7 between 00:01 hours on 5 February 2024 to 23:59 hours on 30 April 2024.”

Any fisher who is the nominated contact on the domestic fishing vessel license system will be informed via an email notification when the variation is enacted. All respondents to the consultation will be informed of the decision by email.

Following responses from the 3 October workshop and this consultation, MMO will consider whether further options for potential effort management is required to ensure sustainable fishing of crawfish. In accordance with the JFS, restrictions on a vessel's ability to fish are a key tool of the fisheries policy authorities, but all such restrictions will be based on objective criteria and based on the need to protect stocks and the marine environment.

A workshop to discuss potential options is due to be held in mid-February 2024 and will run alongside a consultation exercise and MMO will share further details in due course. If you wish to be involved please contact effort@marinemanagement.org.uk.

Conclusion

MMO would like to thank all those involved in the consultation, in particular the fisheries stakeholders and the fishers themselves who have dedicated the time to working with us to highlight the issues, collect the necessary information and evaluate the data.

MMO is committed to developing a collaborative approach to fisheries management and this project is an example of how that can be a success. The effectiveness of the new measures and those under development will be monitored and the results shared and discussed with industry in order to ensure the crawfish fishery is managed in the most environmentally, socially and sustainably way possible.